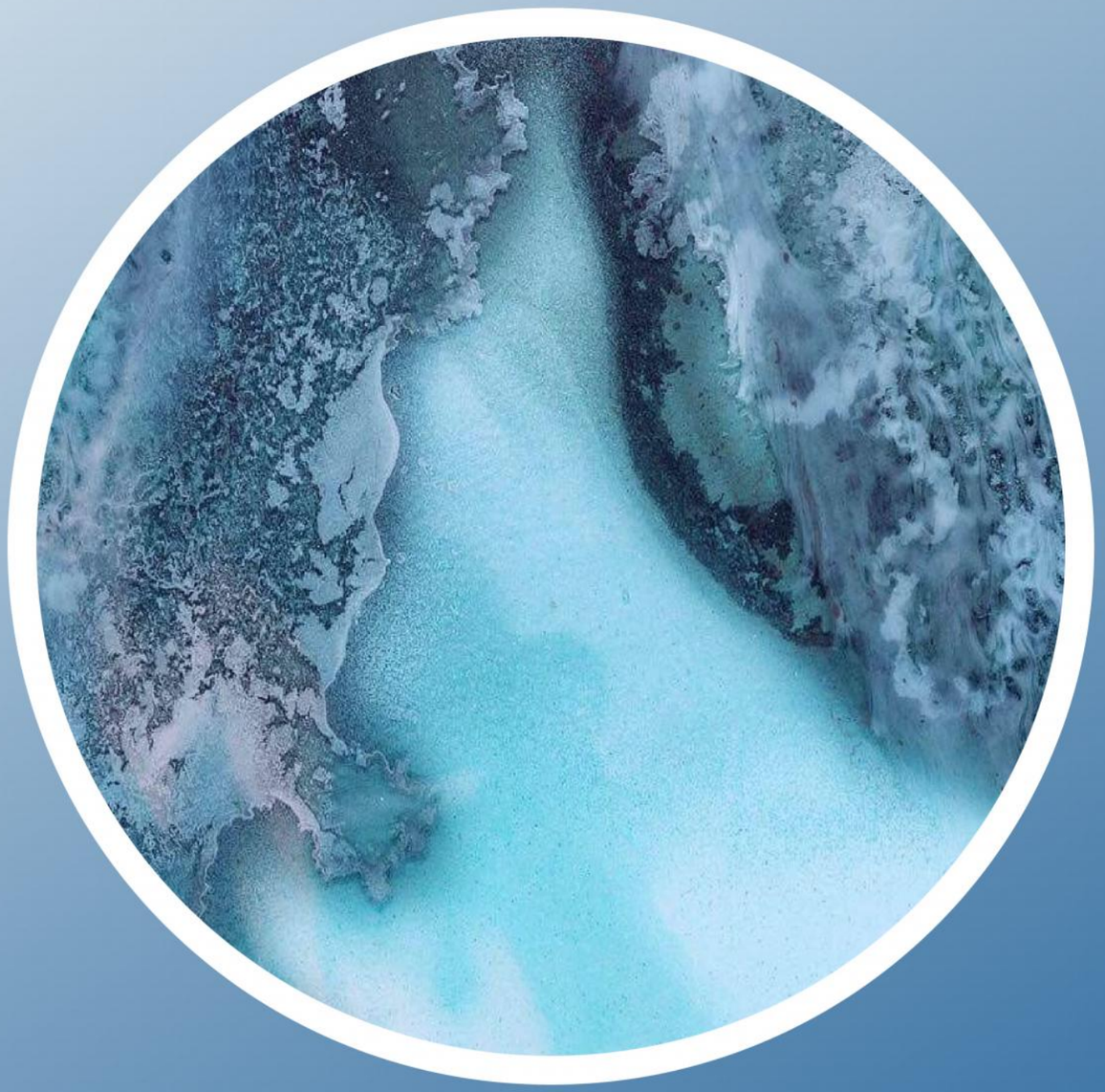
FRP

Guizhou Guangri
Technology Co., Ltd.



# UNSATURATED POLYESTER RESIN

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To be a global competitive polymer company

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# Company Profile

Guizhou Guangri Technology Co., Ltd is a comprehensive technology-based enterprise integrating product R&D,

manufacturing, sales and installation. The Headquarter has a composite material production and management team with more than 30 years of experience, and is committed to continuous innovation in science and technology.

The Company FRP Rockbolt & Rebars are the first in the industry to pass the <GBIT19001-2016/IS09001:2015> quality management system certification<GB/T24001-2016/1S014001:2015> environmental management system certification, <GB/T45001-2020/1S045001:2018 > occupational health and safety management system certification,

The main products include FRP anchor rods, Rebars, Mat, Mesh, PU & FRP Window Profile, solar photovoltaic frames and other composite materials. In order to promote the healthy development of the global composite materials industry, we can also provide high-quality unsaturated resins, epoxy resin glass fibers, molds, pultrusion equipment and other production equipment.

To accompany our customers' ideas with passion and to design solutions for their future. We are convinced that Guangri FRP offers a great market benefit for our customers !

**30** years
INDEPENDENT BRAND

**10000** $m^2$
SELF-OWNED FACTORY

**20**+
CERTIFICATE

**10**+
CERTIFIED PRODUCT

# REINFORCED RESIN





## Main molding process

◎ Pultrusion ◎ Hand lay-up ◎ Filament winding O Molding O Vacuum /resin transfer molding ◎ RTM ◎ Others

## Reinforced resins

An unsaturated polyester resin in which fiberglass and other reinforcing materials are added to the matrix resin to greatly improve some of the mechanical properties of its cured products.

## Products


Hand Lay-up 04
Spray Up 05
Marine 06
Cooling Tower 07
Adhesive 07
Filament Winding Resin 08
Centrifugal Casting 09
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## HAND LAY-UP

| Name | Type | Visc(mPa.s 25°C) | Gel Time(min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness( KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS102PN-1 | Orthophthalic | 110-180 | 9-15 | 68 | 60 | 3 | 7 | Good wettability and transparency. suitable for use with the fiberglass and carbon fiber. |
| DS162 | DCFPD | 400-600 | 6-8 | 72 | 50 | 2.5 | 6 | General-purpose resin with good air-drying propertities, fast curing speed and high mechanical strength |
| DS-191 | DCPD | 400-600 | 3-10 | 70 | 65 | 3 | 6 | General-purpose resin, excellent mechanical properties, has a certain corrosion resistance. |
| DS196 | Orthophthalic | 380-620 | 5-9 | 73 | 60 | 3 | 8.5 | General-purpose resin with excellent fiberglass wettability and mechanical strength. |
| DS196-1 | Orthophthalic | 225-375 | 5-9 | 75 | 60 | 3.5 | 8.5 | General-purpose resin with excellent fiberglass wettability and mechanical strength. |
| DS196P-3 | Orthophthalic | 300-500 | 15-30 | 70 | 60 | 3.5 | 8 | Pre-accelerated resin with excellent fiberglass wettability and mechanical strength,fast curing and demoulding speed,suitable for auto parts,FRP tank head,etc. |
| DS603 | Iso-phthalic | 400-600 | 5-9 | 85 | 70 | 5.0 | 7 | Fast curing and demoulding speed,good heat resistance, high mechanical strength,and good corrosion resistance. |
| DS3301 | Bisphenol A | 200-300 | 5-9 | 75 | 55 | 4 | 6 | Good corrosion resistance, high heat resistance, suitable for high performance requirements field such as tank lining and flooring |
| DS197A | Bisphenol A | 450-650 | 5-15 | 76 | 55 | 4.0 | 6 | Good corrosion resistance,high heat resistance, suitable for high-demand fields such as tank lining and flooring |
| DS321P | Orthophthalic | 220-280 | 30-54 | 70 | 60 | 3.0 | 5 | Pre-accelerated resin,high mechanical strength, suitable for making automobile parts. |
| DS380P | DCPD | 280-460 | 25-45 | 80 | 50 | 2.5 | 5 | Low volatility,good fiberglass wettability, suitable for air conditioner cover etc |
| DS561-1 | DCPD | 300-500 | 15-30 | 70 | 60 | 3 | 5 | High mechanical strength, good corrosion resistance, suitable for flooring. |





## SPRAY UP

| Name | Type | Visc(mPa.s 25°C) | Gel Time(min) | HDT (℃) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness( KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS326P | Orthophthalic | 300-500 | 20-36 | 75 | 60 | 3.0 | 5 | Pre-accelerated resin, excellent fiberglass wettability and mechanical strength,suitable for auto parts. |
| DS326PT | Orthophthalic | 300 500 | 20-36 | 75 | 60 | 4.0 | 10 | Pre-accelerated resin,good anti-sagging propertities, high mechanical strength. |
| DS663PT | DCPD | 300 500 | 20-36 | 80 | 55 | 2.5 | 5 | Pre-accelerated good anti-sagging propertities low volatility and shrinkage |
| DS125PT | Orthophthalic | 240-400 | 20-36 | 60 | 60 | 3 | 3 | Low exotherm,thixotropic,high mechanical strength, table for thicker large size FRP parts such as wind turbine cover |
| DS326PT-2 | Orthophthalic | 200-350 | 20-36 | 75 | 60 | 4.0 | 5 | Pre-accelerated resin,good spray atomization effects. Thixotropic sagging resistance,and excellent mechanical strength |





# DNV

## MARINE

| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS118PT | Orthophthalic | 200-500 | 10-35 | 77 | 75 | 4.7 | 6 | Pre-accelerated, thixotropic, excellent water resistance, high strength, suitable for manufacturing boats. |
| TH110 | Vinyl ester | 300-500 | 10-30 | 110 | 80 | 6 | | Bisphenol A epoxy vinyl ester resin, excellent chemical corrosion resistance, excellent mechanical properties, low shrinkage and good operation. |





## COOLING TOWER

| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS115PT | Orthophthalic | 200-500 | 10-30 | 77 | 50 | 1.6 | 5 | Good water resistance, fast post-cure speed, high mechanical strength,suitable for cooling tower,tanks etc. |



## ADHESIVE

| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS281 | Orthophthalic | 300-500 | 3-10 | 75 | 65 | 3.0 | 6.0 | Strong bonding, good air-drying, fast curing speed, suitable for coating on the surface of natural marble stone, can prevent cracking during cutting. |



FDA

## FILAMENT WINDING

| Name | Type | Visc(mPa.s 25°C) | Gel Time(min) | HDT (°C) | Tensile Strength(MPa) | Elongation(%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS600N | Iso-phthalicl Neopentylglycol | 400-800 | 4-10 | 7100 | 70 | 2.5 | 10 | High reactivity,moderate viscosity,good wettability to continuous fibers and glass fiber fabrics,fast post-curing The final product has high mechanical strength,good toughness,heat resistance,water resistance,corrosion resistance and excellent weather resistance. Suitable for CIPP light-curing trenchless pipeline repair and products with high performance requirements by filament winding or pultrusion process |
| DS608N | Iso-phthalic | 400-600 | 6-8 | 80 | 65 | 3.0 | 10 | Good corrosion resistance,high heat resistance,high mechanical strength,high elongation at break. |
| DS609PN/ 609N | Iso-phthalic | 450-850 | 60-70 | 100 | 75 | 3.0 | 12 | DS-609PN is pre-accelerated isophthalic type resin (609N not contains accelerator),has high reactivity,moderate viscosity,good wettability,good resistance to moisture and heat,strong adaptability of downstream process,good Fatigue endurance,high circumferential bearing capacity,high mechanical strength,high toughness,suitable for high performance products such as winding Hydrogen cylinder. |
| DS638N-1 | Terephthalic | 300-500 | 11-13 | 100 | 70 | 2.0 | 9 | Medium viscosity and relatively high reactivity, high mechanical strength,high toughness,high H.D.T, excellent corrosion resistance,hot water resistance and good fiberglass wettability.Especially suitable for various winding FRP products with high performances such as pipes,storage tanks,etc. |
| DS6 59 | Orthophthalic | 300-500 | 6-8 | 70 | 60 | 3 | 8 | Good mechanical strength,food grade pipe resin |
| DS663/ 4 | DCPD | 400-600 | 6-8 | 70 | 50 | 2 | 5 | Good fiberglass wettability,low styrene emission, high heat resistance and good water resistance. |





## FILAMENT WINDING

| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS666/666-1 | DCPD/ Orthophthalic | 250-500 | 7-9 | 75 | 55 | 2.5 | 6 | Good fiberglass wettability,low styrene emission, high heat resistance,good chemical resistance. |
| DS696N | Orthophthalic | 300-500 | 2-6 | 80 | 65 | 3.0 | 10 | Medium viscosity and reactivity, fast post-curing speed, high mechanical strength and toughness, suitable for various FRP pipe products by continuous winding process. |



## CENTRIFUGAL CASTING(HOBAS)

| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS686-5T | Orthophthalic | 200-300 | 11-13 | 70 | 65 | 3 | 10 | Centrifugal casting pipe(HOBAS) structural layer resin, high tensile Strength and elongation at break. |
| DS689-1 | Orthophthalic | 300-400 | 5-7 | —— | 10 | 40 | Non-Break | Special resin for centrifugal casting (Hobas) lining layer, with extremely high toughness, high brightness and good air-drying properties. |



## PULTRUSION

| Name | Type | Visc(mPa.s 25℃) | Gel Time(min) | HDT (℃) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness(KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DSe81 | Orthophthalic | 600-900 | 4-8 | 70 | 60 | | 15 | Good fiberglass wettability,fast pultrusion speed, Good brightness,suitable for pultrusion poles such as sprayer poles,mosquito nets poles,and profiles. |
| DS681-3 | Orthophthalic | 600-900 | 5-8 | 70 | 60 | 4.5 | 8 | Good toughness,high mechanical strength,suitable for pultrusion poles and profiles. |
| DS681-5 | Orthophthalic | 550-950 | 4-8 | 75 | 70 | 3.0 | 10 | Superior mechanical strength and toughness, suitable for variouspultrustion poles and profiles. |
| DS681N-8 | Orthophthalic | 600-900 | 6-10 | 95 | 70 | 3.0 | 10 | High reactivity,medium viscosity,good wettability to fiberglass and filler,suitable for various pultrustion poles such as mosquito nets poles,tent poles,and profile.The pultrusion FRP products made from this resin have the characteristics of high mechanical strength,good toughness,good temperature resistance and good surface brightness. |
| DS601 | Iso-phthalic | 600-1000 | 5-10 | 85 | 70 | 2.8 | 6.0 | High mechanical strength,good process performance, good surface quality,suitable for various profiles such as photovoltaic. |
| DS602 | Iso-phthalic | 900-1300 | 5-10 | 80 | 70 | 3.2 | 8 | High mechanical strength,good process performance, good surface quality,high surface brightness,suitable for various pultrusion profiles. |
| DS603N | Iso-phthalic | 600-900 | 5-10 | 85 | 70 | 3.3 | 6.0 | Fast pultrusion speed.good surface quality,high surface brightness,good process performance, suitable forpultrusion profiles. |





## PULTRUSION

| Name | Type | Visc(mPa.s 25℃) | Gel Time(min) | HDT (℃) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness(KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS603N-8 | Iso-phthal | 600-900 | 3-10 | 90 | 70 | 3.3 | 12 | Fast pultrusion speed,good surface quality,high surface brightness,good process performance. Suitable for pultrusion profiles. |
| DS606 | Iso-phthal | 420-680 | 9-15 | 78 | 70 | 3.0 | 7 | Good fiberglass wettability,high mechanical strength and heat resistance,suitable for pultrusion poles and profiles |
| DS627 | Orthophthalic | 600-900 | 9-15 | 75 | 65 | 3.0 | 4 | High mechanical strength,good toughness,High heat Deflection temperature(H.D.T),suitable for pultrusion poles and profiles. |
| DS633N | Terephthalic | 600-900 | 5-10 | 95 | 65 | 3.1 | 6 | Fast pultrusion speed,good surface quality,good process performance,suitable for high-end pultrusion profiles |
| DS627-2 | Orthophthalic | 600-900 | 5-9 | 75 | 65 | 3.0 | 4 | High reactivity, high mechanical strength, good surface quality,suitable for filament winding and pultrusion process compounding tubes and profiles. |
| DS627-3 | Orthophthalic | 600-900 | 3-5 | 70 | 65 | 6 | 9 | Medium reactivity,good surface brightness,high mechanical strength,suitable for solid rods, thicker profiles. |
| DS627-5 | Orthophthalic | 600-900 | 5-8 | 80 | 65 | | 10 | High reactivity, good surface brightness, high mechanical strength,suitable for radomes, thin-walled rods or BWFRP (braiding-winding fiber reinforced plastics). |
| DS664N-1 | DCPD | 600-1000 | 6-8 | 110 | 60 | 2.0 | 10 | DCPD resin for pultrusion,good wettability,high hardness and good gloss.Suitable for allkinds of pultrusion profiles. |



# CORRUGATED SHEET

| Name | Type | Visc(mPa.s 25°C) | Gel Time(min) | HDT (°C) | Tensile Strength(MPa) | Elongation (%) | Unnotched Impact Toughness ($KJ/m^2$) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS106N | Iso-phthalic | 100-300 | 5-9 | 70 | 65 | 3.0 | 7 | Good wettability,high mechanical strength, good corrosion resistance and aging resistance |
| DS102N-1 | Orthophthalic | 100-300 | 5-9 | 70 | 65 | 2.0 | 7 | Good wettability,high transparency and good aging resistance |
| DS126N-1 | Orthophthalic | 100-300 | 5-9 | 70 | 50 | 3.0 | 8 | Good wettability transparency、toughness,excellent comprehensive performance |
| DS126N-2 | Orthophthalic | 100-300 | 5-9 | 70 | 50 | 3.0 | 8 | Good wettability、transparency、toughness,excellent comprehensive performance |
| DS128N | Orthophthalic | 100-300 | 5-9 | 70 | 70 | 2.5 | 8 | Good wettability,high mechanical strength,good anti aging resistance and high transparency. |
| DS196N-1 | Orthophthalic | 100-300 | 5-9 | 70 | 65 | 3.0 | 7 | Good wettability and transparency,high brightness, excellent mechanical strength. |
| S122N | Orthophthalic | 100-300 | 5-9 | 70 | 50 | 3 | 6 | Good wettability,high mechanical strength,good transparency,used for colored,opaque FRP roofing sheet or the sheet with low color requirements. |

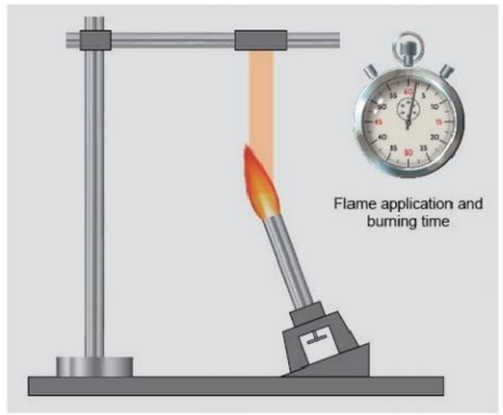


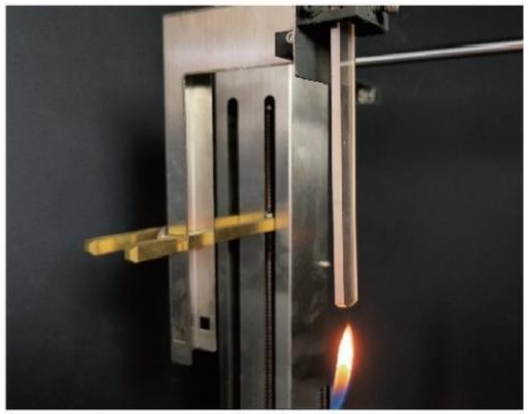


# CONTINUOUS LAMINATION

| Name | Type | Visc(mPa.s 25°C) | Gel Time(min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness ($KJ/m^2$) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS322P-5 | Orthophthalic | 180-300 | 5-9 | 70 | 70 | 3.0 | 7 | Pre-accelerated resin,high flatness panels,high mechanical strength,application to the machining FRP sheets |
| DS330E | Modified | 180-300 | 12-20 | 65 | 55 | 5 | 10 | Pre-accelerated resin,high flatness panels,good toughness,excellent combination property,application to the machining FRP sheets. |
| DS320P-2 | Orthophthalic | 180-300 | 25-35 | 70 | 60 | 3 | 7 | Pre-accelerated resin,good process adaptability,low shrinkage,high toughness,good mechanical strength, application to the machining FRP sheets. |
| DS168N | DCPD | 180-300 | 4-8 | 70 | 50 | 2 | 5 | Good wettability,low shrinkage,good air-drying,and high hardness.used for mechanism FRP plates |
| DS168N-3 | DCPD | 200-300 | 10-15 | 65 | 50 | 3 | 6 | Good wettability,well air-drying,good toughness and low shrinkage,application to the machining FRP sheets. |
| DS320 | Orthophthalic | 200-300 | 10-15 | 70 | 60 | 3 | 10 | Good wettability,high toughness,good air-drying,low shrinkage,application to the machining FRP sheets. |





# FLAME RETARDANT

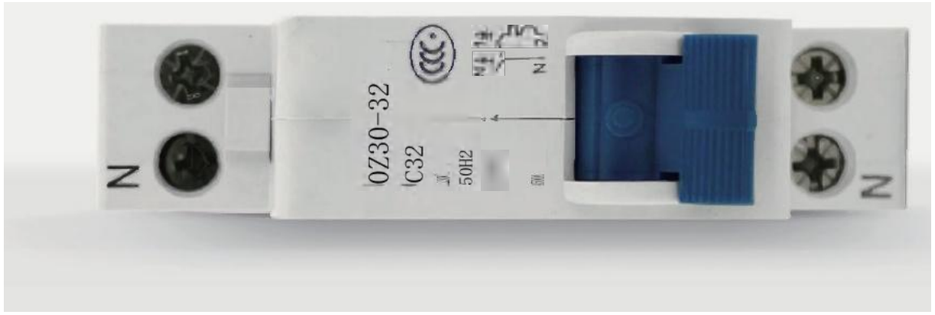
| Name | Type | Visc(mPa.s 25°C) | Gel Time(min) | HDT(°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness(KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS276PN | Reactive type | 180-300 | 12-20 | 70 | 50 | 3.0 | | Reactive type flame retardant,OI more than 26, good anti yellowing,suitable for transparent corrugated sheets or panels |
| DS286 | Resactive type | 300-500 | 5-9 | 70 | 50 | 3.0 | 7 | Reactive type flame retardant,OI more than 32, suitable for hand lay-up,filament winding,pultrusion. |
| DS286P | Beactive typ | 220-280 | 30-54 | 70 | 50 | 3.0 | 7 | Reactive type flame retardant,OI more than 32, suitable for hand lay-up and spray up processed. |
| DS287N | Reactive type | 180-3 300 | 5-9 | 73 | 50 | 5.0 | | Reactive type flame retardant,OI more than 30, suitable for corrugated or flat sheets with higher flame-retardant requirements |
| DS285N | Reactive type | 180-300 | 5-9 | 75 | 50 | 5.0 | 10 | Reactive type flame retardant,OI more than 26, suitable for corrugated or flat sheets with certain flame retardant requirements. |
| DS283P | Reactive type | 120-200 | 25-35 | 75 | 50 | 3.0 | 6.0 | Reactive type flame retardant,OI more than 30,suitable for RTM or vacuum lead-in molding process to make helmets,new energy vehicle battery cover and other FRP products with flame-retardant requirements. |





# MOLDING (SMC/BMC)

| Name | Type | Visc(mPa.s 25°C) | Gel Time(min) | HDT(°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness(KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS803N | SO-phthalic/ Neopentyl glycol | 1400-1600 | 5-7 | 130 | 65 | 2.5 | 8 | SMC/BMC resin,stable thickening,high surface gloss excellent electrical,water and corrosion resistance, low shrinkage.Suitable for molded products with high performance requirements |
| DS803N-1 | Iso-phthalic | 1300-1500 | 9-11 | 120 | 65 | 2.5 | 8 | SMC/BMC resin,stable thickening,high mechanical strength,good electrical propertities, weather resistance and corrosion resistance.Suitable for structural parts with high strength requirements. |
| DS808N | Terephthalic | 1300-1500 | 9-11 | 125 | 65 | 4.5 | 10 | SMC/BMC resin,stable thickening,high gloss,high tensile strength,good impact strength.Applies to different molding products. |
| DS851N | Orthophthalic | 1400-1600 | 8-10 | 120 | 65 | 2.5 | 10 | SMC/BMC resin,general purpose,Slow thickening during early period,fast thickening during late period, high mechanical strength,good electrical performance and gloss.Applies to different types of structural parts. |
| DS854N | Orthophthalic | 1400-1600 | 10-12 | 10 | 65 | 4.0 | 10 | SMC/BMC resin,stable thickening,cost-effective,high mechanical strength,very good toughness.It is suitable for making large-area surface painting molded products |
| DS851N-13 | Orthophthalic | 1400-1600 | 7-9 | 115 | 65 | 2.5 | 10 | SMC/BMC resin with stable thickening,high gloss and good toughness.Suitable for making large-volume molded products. |




# MOLDING (SMC/BMC)

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS859N | Orthophthalic | 1300-1700 | 8-12 | 130 | 65 | 2.5 12 | | It has high reactivity,stable thickening,and has the advantages of high gloss,high heat resistance,and high toughness.It is widely used in pressing molded products that require high mechanical strength, electrical properties,toughness,gloss,and shrinkage control capabilities in the fields of automobile rail transit,electrical components,construction facilities, and civil equipment. |
| DS867N | DCPD | 1000-1400 | 7-9 | 25 | 60 | 2.0 | 10 | SMC/BMC DCPD resin, stable thickening,good wettability,high hardness,good gloss. Suitable for all kinds of molded structural parts. |
| DS883N | Orthophthalic | 1100-1300 | 7-9 | 30 | 65 | 3.0 | 10 | SMC/BMC resin,stable thickening,high gloss,higher mechanical strength,good toughness.Applies to different molding products |
| DS885N | Orthophthalic | 1400-1600 | 5-7 | 30 | 65 | 2.5 | 10 | SMC/BMC resin,stable thickening,high mechanical strength,good toughness,high gloss,low shrinkage. Applies to different high-performance structural molding parts. |
| DS886N | Orthophthalic | 600-800 | 5-7 | 40 | 55 | 2.0 | 7 | Special resin for SMC,low viscosity,stable thickening high gloss,good boiling resistance and weather resistance.Suitable for making molded products with high brightness,high flatness and high temperature resistance. |
| DS886N-1 | High activity | 2500-2700 | 7-9 | 40 | 55 | 2.5 | 8 | SMC/BMC resin,high visc,stable thickening,high reactivity,high toughness,heat resistance.Applies to moulding products with high brightness and high temperature resistance. |
| DS887N | High activiy | 1800-2000 | 9-11 | 140 | 55 | 2.0 | 7 | SMC/BMC resin,high visc,stable thickening,high reactivity,great heat resistance.applies to Grade A surface requirement molding products. |





# MOLDING (BMC)

| Name | Type | Visc(mPa.s 25°C) | Gel Time( min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness(KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS801N Series/ DS8654 | Orthophthalic/ Neopentyl glycol | 2200-3100 | 7-9 | 130 | 60 | 2.0 | 8 | BMC resin,higher reactivity,good liquidity,higher gloss, high molding temperature and long storage period. Application to electrical molding parts. |
| DS802N | Iso-phthalic/ Neopentyl glycol | 2100-2300 | 6-8 | 120 | 65 | 2.5 | 8 | BMC resin,high gloss,excellent electrical,water resistance and corrosion resistance.Application to high-performance molding parts. |
| DS822N | Orthophthalic | 1400-1600 | 6-8 | 110 | 65 | 3.0 | 8 | BMC resin,high elongation,good impact toughness. Applies to virous structural parts. |
| DS828N-1 | Terephthalic | 2100-2300 | 7-9 | 130 | 60 | 2.5 | 8 | BMC resin,cost-effictive,good weather resistance, high gloss,lower shrinkage.applies to different high requirement molding products. |



# MOLDING (BMC)

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS830M DS838N | Terephthalic | 2100-2300 | 6-8 | 110 | 60 | 5.0 | 10 | BMC resin,low cost and efficient, good colorability, high elongation,good compact strength. Application to manhole cover etc moiding products. |
| DS876N | Maleic Anhydride | 2500-2700 | 10-12 | 210 | 50 | 2.0 | 7 | It has the characteristics of high HDT, boiling resistance, good high temperature resistance, excellent corrosion resistance,etc.,and has good wettability with fillers and glass fibers.It is suitable to be widely added to various molding process resins such as hand lay up. winding. casting. pultrusion, RTM,etc.,which greatly improves the heat distortion temperature,high temperature resistance,boiling resistance,and corrosion resistance of the product. |



# LOW SHRINKING ADDITIVE

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| LP-1 | Polystyrene | 24000-26000 | 38-42 | | | | | SMC/BMC low shrinkage agent,good coloring. Good toughness,high glossiness,high mechanical strength. |
| LP-11 | Polystyrene | 18000-20000 | 38-42 | | | | | SMC/BMC low shrinkage agent, low viscosity, good coloring, high glossiness, higher mechanical strength |
| LP-2 | Saturated Polyester | 500-700 | 62-66 | | | | | SMC/BMC low outline agent,good compatibility, good coloring,low shrinkage,good glossiness, increase the moulding products toughness. |
| LP-12 | Saturated Polyester | 200-300 | 46-50 | | | | | SMC/BMC low outline agent,cost-effictive, good compatibility,good thickening. good coloring, low shrinkage, high surface hardness,good glossiness. Low viscosity,increase the filling amount, reduce the cost of molding products |
| LP-13 | Polyvinyl Acetate | 3800-4000 | 46-50 | | | | | SMC/BMC low outline agent,lower viscosity, thickenable,good compatibility,good coating,apply to the high strength,low shrinkage,high flatness moiding products |
| LP-5 | Polymethylacrylic Acid | 3000-4000 | 33-37 | | | | | SMC/BMC low shrinkage agent ,anti yellowing, heat resistance excellent water resistance. |







# REVERSE MOULD

| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS761 | DCPD | 200-400 | 8-20 | 75 | 50 | 5.0 | 13 | low viscosit, low reactivity. Cracking resistance, good toughness, suitable for resin concrete casting products. |
| DS761P-2 | DCPD | 200-400 | 10-15 | 75 | 55 | 2.0 | 6.5 | low viscosit, low reactivity. Cracking resistance, good toughness, suitable for resin concrete casting products. |





| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS255.2 | Carrier Resin | 3900-4100 | | | | | | Styrene-free color carrier resin has high viscosity and good compatibility.It is suitable for grinding toner and has good color stability. |
| DS00 | Carrier Resin | 2500-3500 | | | | | | Carrier resin that does not contain reactive monomers such as styrene,has moderate viscosity,good compatibility, and good colorability.The carrier can be copolymerized with unsaturated polyester resin and has minimal impact on curing. |
| DS2255 | Carrier Resin | 3500-4000 | | | | | | Styrene-free carrier resin.High visC0sity,high grinding shear force,uniform dispersion of toner,not easy to settle,high storage stability |
| DS390N | Carrier Resin | 400-600 | | | | | | Styrene-free active magnesium oxide paste carrier resin,middle visc,good consistency,magnesium oxide paste inside disperse uniformly,no easily settlement, stable storage |
| DS391N | Carrier Resin | 800-1000 | | | | | | Styrene-free active magnesium oxide paste carrier resin,middle visc,good consistency,high filling paste,quite stable coloring,suitable for molding products coloring. |
| DS394N | Carrier Resin | 400-600 | | | | | | Styrene-free special carrier resin for toner,with moderate viscosity, good compatibility,high toner filing capacity, extremely stable color, suitable for colormixing of fiberglass molding process products such as molding. |







## GRINDING DISC ABRASIVE

| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS119 | Orthophthalic | 500-900 | 8-15 | 70 | 55 | 4.0 | 7.5 | High strength, good toughness, not easy to crack, excellent wear resistance, fast curing, suitable for making crystal grinding disc products |
| DS119-3P | Orthophthalic | 80-160 | 3-8 | 75 | 65 | 2.5 | 5.0 | High strength, good toughness, not easy to crack, fast curing in the later period, easy to demoulding, good air drying.Application to polishing abrasive products. |
| DS 566-5 | DCPD | 100-180 | 3-8 | 70 | 60 | 2.3 | 6.0 | High strength, quick and easy to demould after curing, good air drying properties, suitable for polishing abrasive products. |





## MODEL

| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS116PT | Orthophthalic | 200-500 | 8-15 | 70 | 60 | 3.0 | 7 | Fast curing speed, good demoulding performance, high strength,suitable for the fiberglass model products. |



## TOOLING

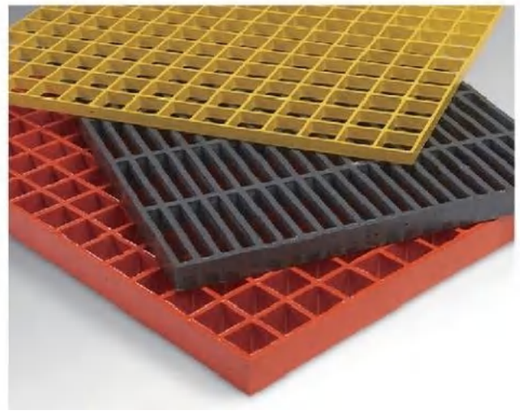
| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS199 | Orthophthalic | 420-700 | 6-10 | 85 | 60 | 2.5 | 8 | Excellent mechanical strength and heat resistance, little deformation. |

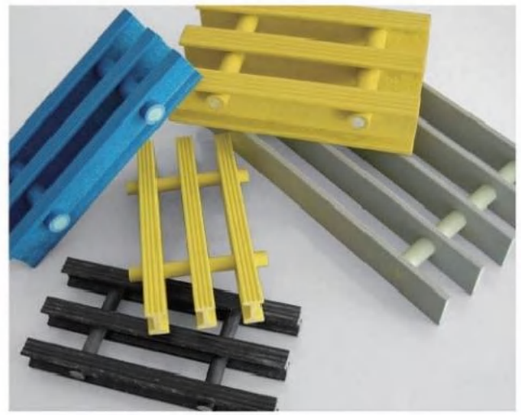


## TERRACE

| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS561-1 | DCPD | 300-500 | 15-30 | 70 | 60 | 3 | 5 | High mechanical strength, good corrosion resistance, suitable for flooring. |









## GRID

| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS152 | Orthophthalic | 345-575 | 5-9 | 65 | 65 | 6.0 | 12 | Good transparency, good toughness, the overall performance is good. |
| DS152-1 | Orthophthalic | 345-575 | 5-9 | 72 | 60 | 5.0 | 10 | Good air-drying, high mechanical strength, good toughness, application to ordinary molded grids. |
| DS603 | Iso-phthalic | 400-600 | 5-9 | 85 | 70 | 5.0 | 7 | High heat resistance and mechinical strength, good corrosion resistance. |
| DS603-3 | Orthophthalic | 400-600 | 5-12 | 70 | 65 | 5 | 9 | Molded grids resin, high strength, good toughness. |
| DS603-3A | Terephthalic | 400-600 | 5-9 | 70 | 65 | 3.0 | 10 | High mechanical strength, good toughness, good corrosion resistance. Application to ordinary molded grids. |



# PMMA/ABS BACKING REINFORCED

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS679PT | Orthophthalic | 80- 50 | 10-20 | 60 | 47 | 2.0 | 3 | Pre-accelerated,pre-thixotropic,low viscosity,fast Curing during last period.Excellent fller wettability, especially suitable for bonding between acrylic sheet, composite sheet and Fiber reinforced layer,suitable for spray-up. |
| DS279P | Modified | 150-250 | 8-20 | 60 | 42 | 2.0 | 3 | Excellent glass fiber wetting ability,strong adhesion to acrylic and ABS composite board. |
| DS279P-3 | Orthophthalic | 90-200 | 8-25 | 60 | 60 | 2 | 5 | Low viscosity,fast post-curing,excellent fiberglass wettability,strong adhesive to acrylic sheet. |
| DS279P-1 | Modified | 150-250 | 8-20 | 60 | 42 | 2.0 | 3 | Good adhesive to acrylic sheet and composite materials. |
| DS179P-2 | Orthophthalic | 90-200 | 8-25 | 60 | 60 | 2 | 5 | Low viscosity,fast post-curing,excellent fiberglass wettability with acrylic sheets. |
| DS179PT | Orthophthalic | 80-150 | 10-20 | 60 | 50 | 2.0 | 3 | Pre-accelerated,pre-thixotropic,low viscosity,fast curing during last period.Good fiberglass wettability especially suitable for bonding between acrylic sheet, composite sheet and FRP |
| DS561-3 | DCPD | 80- 150 | 3-10 | 67 | 52 | 2.6 | 5.8 | wviscosity,excellent fiberglass wettability,suitable for strengthening the back of acrylic and composite board bathtub products |
| DS566 | DCPD | 200-400 | 3-10 | 70 | 60 | 3 | | Excellent fiberglass wettability,suitable for strengthening the back of acrylic and composite board bathtub products. |





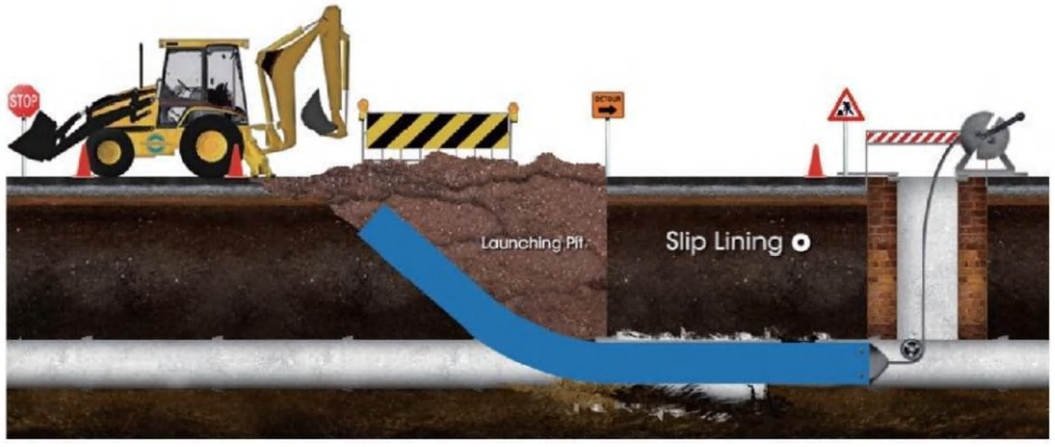






# VACUUM/RTM

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS105P | Orthophthaic | 120-200 | 20-30 | 75 | 60 | 4 | 8 | Good fiberglass wettability,low exothermic peak and shrinkage,fast curing demoulding,and finished FRP products have good mechanical strength |
| DS192P | Orthophthalic | 120-200 | 60-90 | 80 | 60 | 3.0 | 3 | Good fluidity,good wettability,long application period, high strength,low shrinkage and deformation.Suitable for the vacuum process to produce radomes and other products. |
| DS193F | Orthophthalic | 120-200 | 16-22 | 70 | 70 | 3.0 | 10.0 | Good wettability,low exothermic peak,low curing shrinkage, nice color,high mechanical strength suitable for RTM molding process to make automotive parts and other FRP products. |
| DS163F | DCPD | 150-250 | 14-26 | 65 | 50 | 2.0 | 3.0 | Good fiberglass wettability, low shrinkage, good curing property, high mechanical strength,application to RTM auto parts etc. |
| DS125P-1 | Orthophthalic | 165-275 | 14-26 | 60 | 60 | 2.0 | 3 | Good fiberglass wettability, low exotherm,good curing property,high mechanical strength,application to RTM process. |
| DS108P | Iso-phthalic | 120-200 | 16-22 | 85 | 70 | 2.5 | 8.0 | Good wettability,high strength,good heat resistance, suitable for RTM molding to produce automotive parts |
| DS105P-70 | Orthophthalic | 120-200 | 60-90 | 75 | 60 | 4.0 | 8.0 | Good fluidity,good wettability,long application period, fast curing and demoulding,high strength,good toughness low shrinkage and deformation.Suitable for the vacuum infusion process to produce products such as cabin covers |




## UV-Curable

| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS600N | Iso-phthalic/ Neopentyl glycol | 400-1000 adjust with season | 4-10 adjust with season | 100 | 65 | 2 | 9 | Suitable viscosity, good fiberglass fabric wettability. meet the requirements of prepreg thickening at different ambient temperatures, the finished prepreg has a long shelf life, low styrene odor volatilization, and is easy to attach to the pipe wall under different temperature environments. After curing, the product has high mechanical strength, good toughness, excellent heat resistance, water resistance, corrosion resistance and weather resistance, and is suitable for CIPP UV curing, CIPP hot water turnover method to repair pipe lining |

# NON REINFORCED RESIN





## The Main Applications &Industries

◎ Button ◎ Solid Surface ◎ Artware ◎ Insulating Paint ◎ Engineered Stone ◎ Coating ◎ Putty ◎ Others

## Non Reinforced Resin

Unsaturated polyester resins:matrix resin mixed with inorganic filler used or used alone.

## Products


Button-Heat Resistant 32
Planking Button 32
Recycled and Styrene-free Resin 33
Rod-Like Button 33
Artware 34
Flexible Resin 35
Solid Surface 36
Casting Bathtub 37
Counter Basin,Beltlines and Artificial Agate 38
Surface Coating 40
Insulating Paint 41
Marble Based Block 42
Thermal Transfer Printing Resin 42
For Breton 43
Quartz Based Slab 43
Marble Glue 44
Putty 44
Bowling 45
Billiard 45
Anchor 46



## BUTTON-HEAT RESISTANT

| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS906 | Iso-phthalic | 800-1200 | 3-6 | 63 | 55 | 5.0 | 12 | Widely applied to top grade pearl planking buttons, good heat resistance, light resistance, and compact strength. |
| DS905 | Iso-phthalic | 800-1200 | 3-6 | 63 | 55 | 5.0 | 12 | Widely applied to top grade pearl planking buttons, good heat resistance and compact strength. |
| DS902-1 | Iso-phthalic | 800-1200 | 4-6 | 73 | 70 | 2.5 | 7.0 | Higher hardness and good water resistance, high temperature water boiling buttons. |

## PLANKING BUTTON

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS989 | Orthophthalic | 900-1200 | 3-6 | 55 | 50 | 3.0 | 7.0 | Low shrinkage,widely applied to multi-layer planking buttons,high processing property performance |
| DS988.9 | Orthophthalic | 800-1200 | 3-6 | 58 | 50 | 3.0 | 7.0 | Widely applied to normal pearl planking buttons and hair clips etc small artwares,good processing property |
| DS985 | Orthophthalic | 400-600 | 3-5 | 55 | 50 | 3.0 | 7.0 | Resin color is water green,widely applied to craft pearls and decorations. |
| DS981 | Orthophthalic | 350-550 | 2-4 | 55 | 50 | 3.0 | 7.0 | Light color,widely applied to decorations. |
| DS903 | Iso-phthalic | 900-1300 | 3-6 | 58 | 40 | 12 | 15 | Widely applied to top grade pearl planking buttons, excellent compact strength |



## RECYCLED AND STYRENE-FREE RESIN

| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS988P | GRS/TC resin | 800-1200 | 3-6 | 58 | 50 | 3.00 | 7.0 | Polyester resin with PET materials, with GRS certification and TC Trading Certificate. |



## ROD-LIKE BUTTON

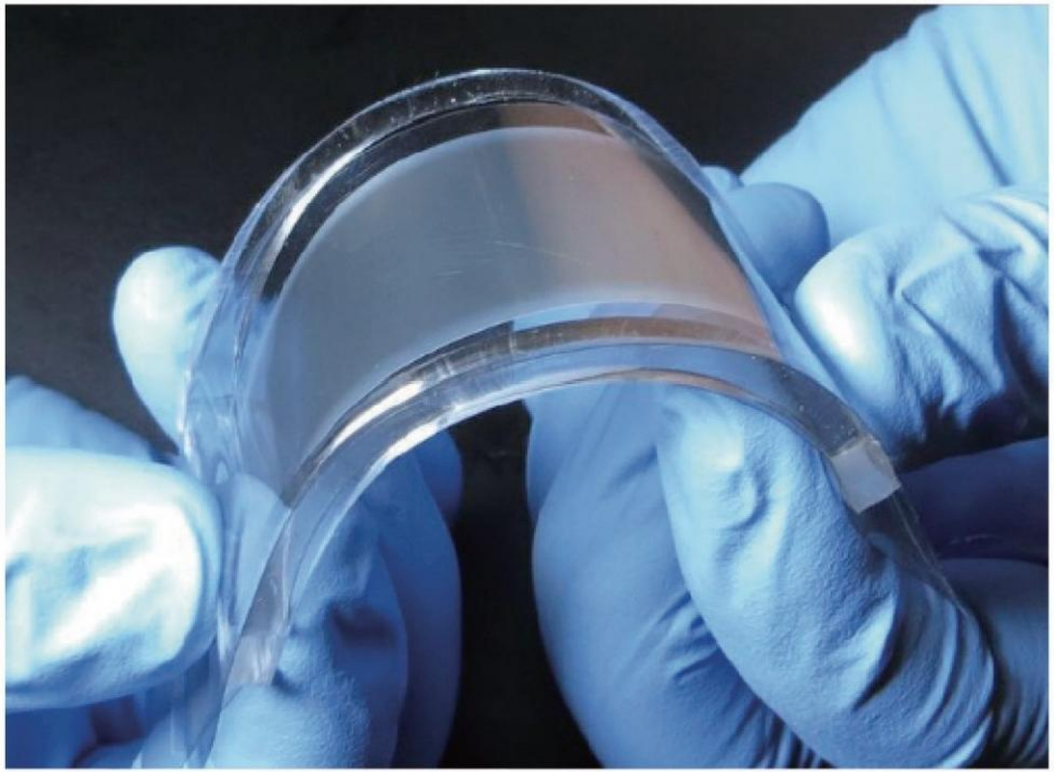
| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation(%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS928N | Orthophthalic | 800-1200 | 3-6 | 58 | 50 | 3.0 | 7.5 | Non-wax,good transparency,suitable for making various rod-like buttons and transparent casting products. |
| DS926NT | Orthophthalic | 800-1200 | 4-7 | 55 | 50 | 4.0 | 7.0 | Pre thixitropic,suitable for making various colorful rod-like buttons |
| DS926N-8 | Orthophthalic | 800-1200 | 4-7 | 55 | 50 | 4.0 | 7.0 | Good thixitropic efforts,suitable for making various colorful rod-like buttons |



## ARTWARE

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS257N | Orthophthalic | 400-800 | 3-5 | 55 | 50 | 4.0 | 6.5 | General purpose resin for transparency artwares. |
| DS258N | Orthophthalic | 350-600 | 3-5 | 65 | 60 | 2.0 | 7.0 | Good yellowing resistance,high transparency. application to the crystal artware. |
| DS259N | Orthophthalic | 350-600 | 3-5 | 65 | 60 | 2.0 | 7.0 | Good yellowing resistance,high transparency. application to the transparent panel artwares. |
| DS907P | Orthophthalic | 120-160 | 3-5 | 58 | 55 | 15.0 | 12.0 | Pre-accelerated, artware resin that need to be flled. |
| DS907PF-1 | Orthophthalic | 120-160 | 3-5 | 58 | 55 | 15.0 | 12.0 | Pre-accelerated,meet the requirements of simple environmental protection,artware resin that need to be flled |
| DS908P | Orthophthalic | 120-160 | 3-5 | 60 | 60 | 10.0 | 8.0 | Pre-accelerated、good product quality,good airdry artware products |
| DS909 | Orthophthalic | 220-380 | 4-8 | 67 | 60 | 3.7 | 7.0 | Suitable for products with electroplating process and high requirements on surface |





## FLEXIBLE RESIN

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS292N | Polyurethane Modified | 400-600 | 8-12 | 35 | 20 | 100 | 110 | High Elongation,high toughness,higher relative strength, can be used with other resins to improve the elongation, compact strength,also can be used alone to make the high compact strength and flexible products. |
| DS228N | Orthophthalic | 300-600 | 3-8 | | | | | Higher elongation and compact strength.Can be used with other resins to improve the flexible and compact strength. |
| DS225 | Orthophthalic | 400-600 | 4-6 | | | | | Higher elongation and compact strength.Can be used with other resins to improve the flexible and compact strength.Better anti bending fatigue than DS228, application to the furniture carving products. |



## SOLID SURFACE

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS724-2 | Orthophthalic | 1400-2200 | 3-5 | 55 | 60 | 6.0 | 8.0 | High Viscosity,strong wettability. Application to artifical marble bonding,bond gule,cost-effective. |
| DS723-7 | Orthophthalic | 500-700 | 3-5 | 55 | 60 | 8.0 | 12 | Good wettability for fillers,high transparency, not easily cracked,application to artificial marble stone、countertop etc. |
| DS726 | Orthophthalic | 650-850 | 5-8 | 60 | 65 | 6.0 | 8.0 | Good wettability for fillers,high transparency,high toughness,application to artificial marble stone、sanitary products. |
| DS726-7 | Orthophthalic/MM | A 650-850 | 5-8 | 65 | 65 | 6.0 | 10.0 | Good wettability for fillers,high transparency,could be mixed with methyl methacrylate(MMA),good weather resistance,high toughness,application to artificial marble stone、countertop and sanitary etc. |
| | Orthophthalic | 650-900 | 5-8 | 60 | 65 | 6.0 | 9.0 | High hardness,no after-curing process while making artificial marbles.Also could make the belt lines and decorations |
| DS728 | NPG/Orthophthali | C700-900 | 5-8 | 63 | 68 | 5.0 | 10.0 | NPG/Orthophthalic,high toughness,not easily cracked, good weather resistance,application to artificial marble stone,transparency panels,artificial agates etc. |
| DS728-6 | NPG/MMA | 700-900 | 5-8 | 65 | 65 | 5.0 | 10.0 | Orthophthalic NPG,compound acrylic resin,good wettability,not easily crack,application to the artifical marble,basin panels,sanitary ware etc. |



## SOLID SURFACE

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS724-3 | Orthophthalic | 400-550 | 3-5 | 58 | 50 | 6.0 | 8.0 | Good wettability for fillers,high transparency,high toughness,application to artifical marble,basin panels etc. |
| DS191-1 | Orthophthalic | 600-800 | 3-5 | 55 | 45 | 4.0 | 5.0 | Middle viscosity.good wettability,high toughness, high mechanical property,application to artifical marble stone particles. |
| DS783 | Orthophthalic | 650-850 | 6-9 | 67 | 65 | 3.0 | 3.0 | Middle viscosity,good wettability,high toughness, high mechanical property,application to artifical marble stone particles |



## CASTING BATHTUB

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS707 | so ohthali NPG/MMA | 800-1100 | 6-9 | 65 | 70 | 4.0 | 10.0 | lso-phthalic NPG modified composite acrylic resin. High-end panels, basins, waistlines, bathroom products Excellent weather resistance, water resistance nd ageing resistance. |
| DS707UV | so-phthalic NPG/MMA | 800-1100 | 6-9 | 65 | 70 | 4.0 | 10.0 | lso-phthalic NPG modified composite acrylic resin. High-end pan els. basins, waistlines, bathroom products Excellent weather resistance, water resistance and ageing resistance. |
| DS707-5 | Iso-phthalic MMA | 800-1100 | 5-9 | 67 | 65 | 3.0 | 8.0 | lso-phthalic modified compound acrylic resin, high compact strength and good filler propertyand defoaming, application to the high grade artifical marble, basin panels etc. |



# COUNTER BASIN,BELTLINES AND ARTIFICIAL AGATE

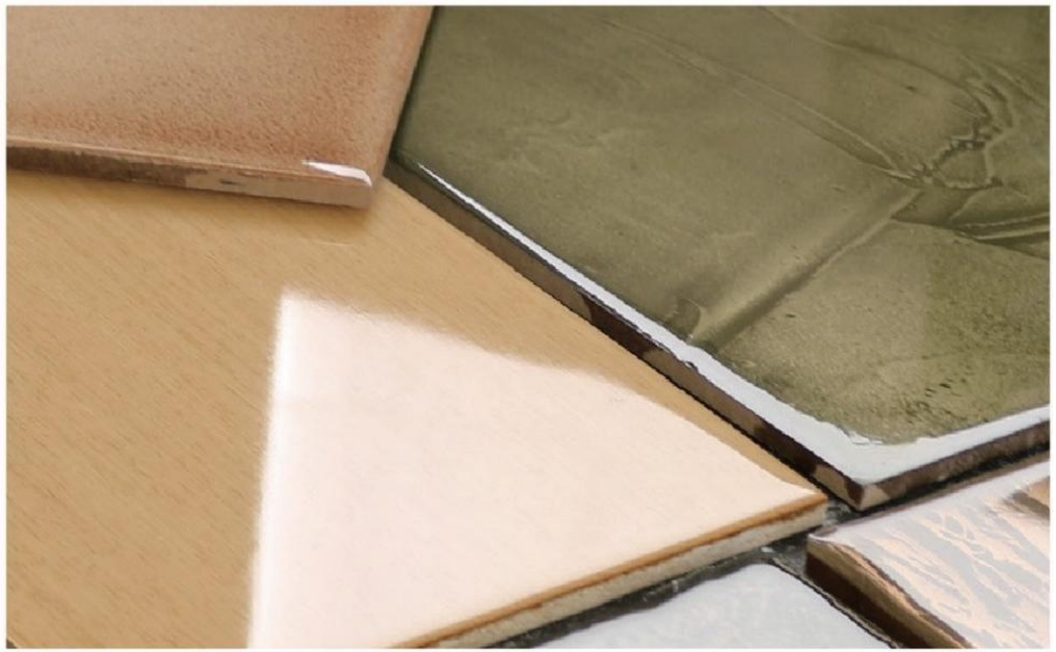
| Name | Type | Visc(mPa.s 25℃) | Gel Time (min) | HDT (℃) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS166 | DCPD | 150-300 | 4-6 | 60 | 50 | 5.0 | 6.0 | Good wettability,fast curing,low shrinkage.Used for making porcelain white Gelcoat basin. |
| DS566-3A | DCPD | 150-350 | 2-6 | 70 | 55 | 4.0 | 7.0 | Medium viscosity and reactivity,fast post-curing speed. crack resistance and good toughness,suitable for casting process for basin,resin concrete and other products. |
| DS705 | Iso-phthalic | 750 00 | 4-7 | 65 | 65 | 4.0 | 8.0 | Iso-phthalic UPR,water resistance, soiling resistanceand great alkali resistance,application to sanitary ware, decoration parts, belt lines products etc. |
| DS727-7 | Orthophthalic | 400-600 | 4-7 | 60 | 65 | 5.0 | 7.0 | Good filling wettability, high transparency, good toughness, applicable to belt line and decoration materials. |
| DS757 | Orthophthalic | 300-550 | 3-5 | 60 | 65 | 7.0 | 10.0 | High transparency,good filler and defoaming property application to artifical marble, artifical agate and sanitary products. |





# COUNTER BASIN,BELTLINES AND ARTIFICIAL AGATE

| Nane | Type | Visc 25℃) | Ge min | ℃) | Tensile str (MPa) | (%) | Unnotched mpact Touhn (KJ/㎡) | Application&Remarks |
|---|---|---|---|---|---|---|---|---|
| DS758 | Orthophthalic | 600-800 | 4-7 | 60 | 55 | 7.0 | 9.0 | Good filling performance and defoaming properties, plication to artifical marble、water tank and sanitary products. |
| DS759 | Orthophthalic | 400-600 | 4-7 | 65 | 67 | 3.0 | 5.0 | Good filling performance and defoaming properties, application to artifical marble、water tank、artifical agate and sanitary products. |
| DS759.2 | Orthophthalic | 400 600 | 4-7 | 65 | 60 | 3.0 | 8.0 | High transparency,Good filling performanceand defoaming properties,ageing resistance.Application to artifical marble、water tank、artifical agate and sanitary products and product surface layer. |
| DS759UV | Orthophthalic | 400-600 | 4-7 | 65 | 67 | 3.0 | 5.0 | Good filingperformance and defoaming properties, ageing resistano artifical agate and U11Cal ole sanitary products and water tank product surtace layer. |
| DS759-5 | Orthophthalic | 400-600 | 4-7 | 65 | 70 | 6.0 | 12.0 | Good toughness,good fller and defoaming property, application to artifical marble、water tank、artifical agate and sanitary products. |

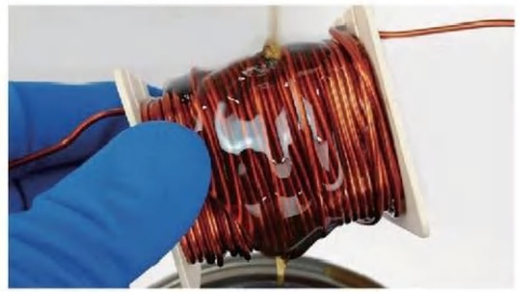


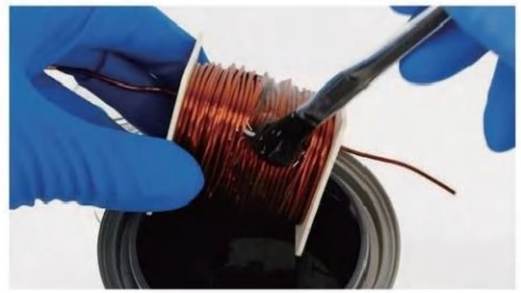
## SURFACE COATING

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness ($KJ/m^2$) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS226 | Orthophthalic | 300-500 | 8-12 | 70 | 72 | 2.1 | 7.0 | Good toughness,high hardness,good polishing, duct surface without pinholes,application to pianos and high grade wood paints. |
| DS27 | Orthophthalic | 700 50 | 3-5 | 70 | 70 | 3.7 | 10.0 | Good toughness,high hardness,good polishing, product surface without pinholes,application to pianos and high grade wood paints |
| DS790-2 | Orthophthalic | 1200-1600 | 3-5 | 70 | 70 | 3.8 | 11 | Good process property,high toughness,good adhesion,not easily crash,good glossiness,anti yellow resistance and low temperature resistance;Application to high grade nature stones, artifical stone and wood surface coating |
| DS790 | Orthophthalic | 700-900 | 2-4 | 70 | 70 | 3.8 | 11 | High mechanical strength, good rigidity,good surface drying,strong adhesion,hardness and transparency. Application to high grade nature stones,artifical stone and wood surface coating. |
| DS792P | Orthophthalic | 500-900 | 5-8 | 70 | 68 | 3.8 | 13.0 | High mechanical strength,good rigidity.good surface drying,strong adhesion,hardness and transparency. Application to high grade nature stones, artifical stone and wood surface coating. |









## INSULATING PAINT

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness ($KJ/m^2$) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS660 | DCPD | 400-600 | 9-12 | | | 8 | 12 | Good toughness,good electrical insulation,suitable for high toughness insulation paint resin |
| DS665 | DCPD | 1300-1600 | 15-25 | 80 | 50 | 3 | 10 | Good toughness,high bond strength,good electrical insulation,suitable for high toughness insulation paint resin. |
| DS668 | DCPD | 7000-8000 | 5-9 | | | | | Styrene Free,low smell,low VOC emission,good toughness,suitable for environmentally insulating paint resin |
| DS667 | DCPD | 1300-1600 | 9-12 | 72 | 50 | 2 | 8 | Good electrical insulation,medium heat resistance. Application to insulating pain |
| DS663-1 | DCPD | 500-700 | 5-9 | 72 | 50 | 2 | 5 | Good electrical insulation,medium heat resistance. Application to insulating paint resin. |



# MARBLE BASED BLOCK

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS721-5 | Orthophthalic | 600-850 | 8-11 | 55 | 60 | 11.0 | 13.0 | High filing amount,high hardness,good bonding, suitable for granite tile. |
| DS735N | Terephthalic | 650-750 | 12-15 | 55 | 55 | 18 | 7 | Good corrosion resistance,high elongaion.Suitable for special requirements of granite tile. |
| DS272MBL | Orthophthalic | 650-850 | 15-20 | 55 | 60 | 8.0 | 11.0 | High filling amount,high hardness,good bonding.suitable for automatic production line pressed artificial granite stone. |
| DS272NS | Orthophthalic | 650-850 | 15-20 | 55 | 60 | 8.0 | 11.0 | Styrene free,eco-friendly resin,high filling amount,high hardness,good bonding,suitable for automatic production line pressed artificial granite stone. |
| DS202MBL | Iso-phthalic | 650-850 | 15-20 | 63 | 65 | 7.0 | 8.0 | High strength &hardness,good yellowing resistance, suitable for automatic production line pressed artificial granite stone. |



# Thermal Transfer Printing Resin

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS721H | Orthophthalic | 900-1200 | 12-15 | 60 | 63 | 8.0 | 10.0 | Excellent filler wettability, good yellowing resistance high temperature resistance, small deformation, Suitable For thermal transfer quartz stone products. |
| DS23091 | Orthophthalic | 800-1200 | 10-15 | 60 | 58 | 6.0 | 10.0 | Medium viscosity and high reactivity, high mechanical properties and anti-stain, high temperature resistant anti yellowish, suitable for the production artificial quartz slabs. |



# FOR BRETON

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS760AU | Orthophthalic | 350-550 | 8-12 | 63 | 65 | 3.0 | 6.0 | Low viscosity,high strength,goodyellowing resistance, cellentfiller wettability.Application to automatic production line artificial quartz stone products. |



# QUARTZ BASED SLAB

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS721 | Orthophthalic | 900-1200 | 12-15 | 58 | 63 | 8.0 | 10.0 | Excellent filler wettability, high mechanical strength, good toughness,application to artificial quartz stone products |
| DS721-3 | Orthophthalic | 700-1100 | 11-15 | 63 | 65 | 6.0 | 12.0 | Excellent filler wettability,high mechanical strength, good toughness, application to artificial quartz stone products. |
| DS725 | Orthophthalic | 700-1100 | 10-13 | 67 | 70 | 5.0 | 10.0 | Excellent filler wettability,high mechanical strength, high curing degree,application to artificial quartz stone products.Especially dark color production. |
| DS721-9 | Orthophthalic | 350-550 | 10-13 | 63 | 65 | 5.0 | 10.0 | Good filler wettability, suitable for artificial quartz stone products. |
| DS725NS | Orthophthalic | 800-1200 | 11-15 | 55 | 58 | 11.0 | 8.0 | Styrene free,eco-friendly resin.Excellent filler wettabiity,high mechanical strength,application to lal quartz stone |
| DS721-4X | Orthophthalic | 1000-1300 | 11-15 | 55 | 58 | 8.0 | 10.0 | Excellent filler wettability,low shrinkage,good toughness.Application to artificial quartz stone products. |
| DS721-2 | Orthophthalic | 700-900 | 10-13 | 55 | 55 | 6.0 | 8.0 | Excellent filler wettability,low shrinkage. Application to ordinary artificial quartz stone products. |
| DS706AU | Iso-phthalic | 350-550 | 8-12 | 65 | 70 | 3.0 | 6.0 | Low viscosity,high strength,good alkali resistance and yellowing resistance,excellent filler wettabiity. Application to automatic production line artificial quartz stone products. |



## MARBLE GLUE

| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS667-2P | DCPD | 650-850 | 2-5 | 75 | 50 | 3.5 | | Good stable storage, quick curing, application to marble glue resin. |
| DS722AP | Modified | 900-1400 | 3-5 | 75 | 50 | 3.5 | 8.5 | High activity, short gel time, fast curing,long storage time and high strength. Compared with ordinary unsaturated polyester resin, it can save accelerator and solid agent, reduce production process,production cost and facilitate operation. |



## PUTTY

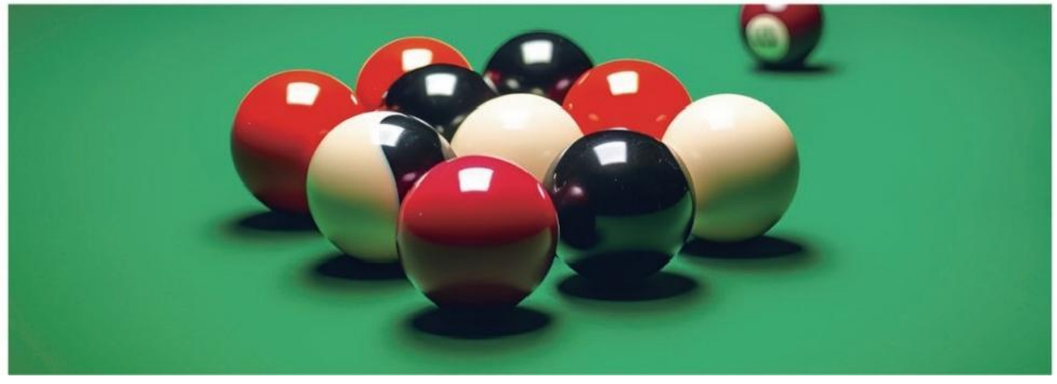
| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS261 | DCPD | 120-220 | 9-14 | | | 20 | 15 | Outstanding heat resistance of 200°C. Easily polished and easy to scrath coating,application to the dusty spray putty to the whole auto body butty. |
| DS265 | Special Raw Material | 150-300 | 9-14 | | | 22 | 17 | Easily polished and easy to scrath coating,good heat resistance, application to whole auto body putty. |
| DS266 | Special Modified | 150-300 | 9-14 | | | 30 | 20 | Good toughness,easily polished and easy to scrath coating, good heat resistance, application to whole auto body putty. |





## BOWLING

| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS229N | Orthophthalic | 400-600 | 3-5 | | | | | Lower heat expansion force when curing, do not crack while applied to steel moulds, suitable for Bowling ball liner. |
| DS229N-3 | NPG/Orthophthalic | 550-650 | 4-6 | | | | | Rubber D type hardness above 78, application to Bowling ball outer layer, also can be used with DS292N. |



## BILLIARD

| Name | Type | Visc (mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS293 | Orthophthalic | 500-600 | 20-30 | 55 | 45 | 15 | 20 | Medium hardness, excellent compact strength, application to Billiard Balls. |






## ANCHOR

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation(%) | Unnotched Impact Toughness ($KJ/m^2$) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| DS763 | DCPD | 900-1200 | 3-6 | 75 | 50 | 3.5 | 2.5 | High pulling strength,fast curing.Application to the construction anchor,anchor adhesive etc. |
| DS763P | DCPD | 900-1200 | 3-6 | 75 | 50 | 3.5 | 2.5 | Pre-accelerated resin,fast curing,high pulling strength, Application to the construction anchor,anchor adhesive |

# VINYL ESTER RESIN



## Products

TH-100 Series: 50
Bisphenol A epoxy vinyl ester resin

TH-200 Series: 51
Phenolic epoxy vinyl ester resin

TH-300 Series: 52
Brominated epoxy vinyl ester resin

TH-400 Series: 53
Special modified epoxy vinyl ester resin



## TH-100 SERIES:
## BISPHENOL A EPOXY VINYL ESTER RESIN

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| TH-110 | Vinyl ester | 300-500 | 10-30 | 110 | 80 | 6 | | Bisphenol A epoxy vinyl ester resin,excellent chemical corrosion resistance, excellent mechanical properties, low shrinkage and good operation. |
| TH-110P-2 | Vinyl ester | 200-300 | 20-40 | 110 | 85 | 7 | | Higher solid content,better wettability and leveling, better fatigue resistance and water resistance, excellent bonding effect with the substrate. |
| TH-120P-1 | Vinyl ester | 150-250 | 20-40 | 110 | 79 | 5 | | Pre-accelerated bisphenol A type epoxy vinyl ester resin,low viscosity,suitable for vacuum molding process, excellent effect with fiberglass and deaeration effect compared with the same type of resin,TH-120P-1,higher solid conten,excellent wettability, better fatigue resistance and water resistance,extremely low volume shrinkage ratio. |
| TH-120PT | Vinyl ester | 250-350 | 20-40 | 110 | 79 | 5 | | Higher solid content,better wettability,very low volume shrinkage, and good anti-sagging performance. |
| TH-160-1 | Vinyl ester | 450-650 | 10-20 | 110 | 75 | 6 | | Better wettability,mechanical properties and handling |





## TH-200 SERIES:
## PHENOLIC EPOXY VINYL ESTER RESIN

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| TH-210 | Vinyl ester | 250-350 | 10-30 | 145 | 80 | 4 | | Good rigidity and intensity at higher temperature, corrosion resistance of acid organic solvent and acid oxidizing medium,especially in the acidic oxidizing environment it has long-term tolerance,good construction operation,suitable for a variety of fiberglass reinforced process.is high temperature resistant FRP heavy anti-corrosive resin |
| TH-230 | Vinyl ester | 500-800 | 10-30 | 165 | 79 | 4 | 3 | Good rigidity and intensity at higher temperature.corrosion resistance of acid organic solvent and acid oxidizing medium, especially in the acidic oxidizing environment it has long-term tolerance, good construction operation, suitable for a variety of fiberglass reinforced process. It is widely used in chemical engineering and industry of many chemical media such as acids, alkalis, salts, organic solvents, etc., and is an ideal high temperature resistant FRP heavy anti-corrosive resin. |




## TH-300 SERIES:
## BROMINATED EPOXY VINYL ESTER RESIN

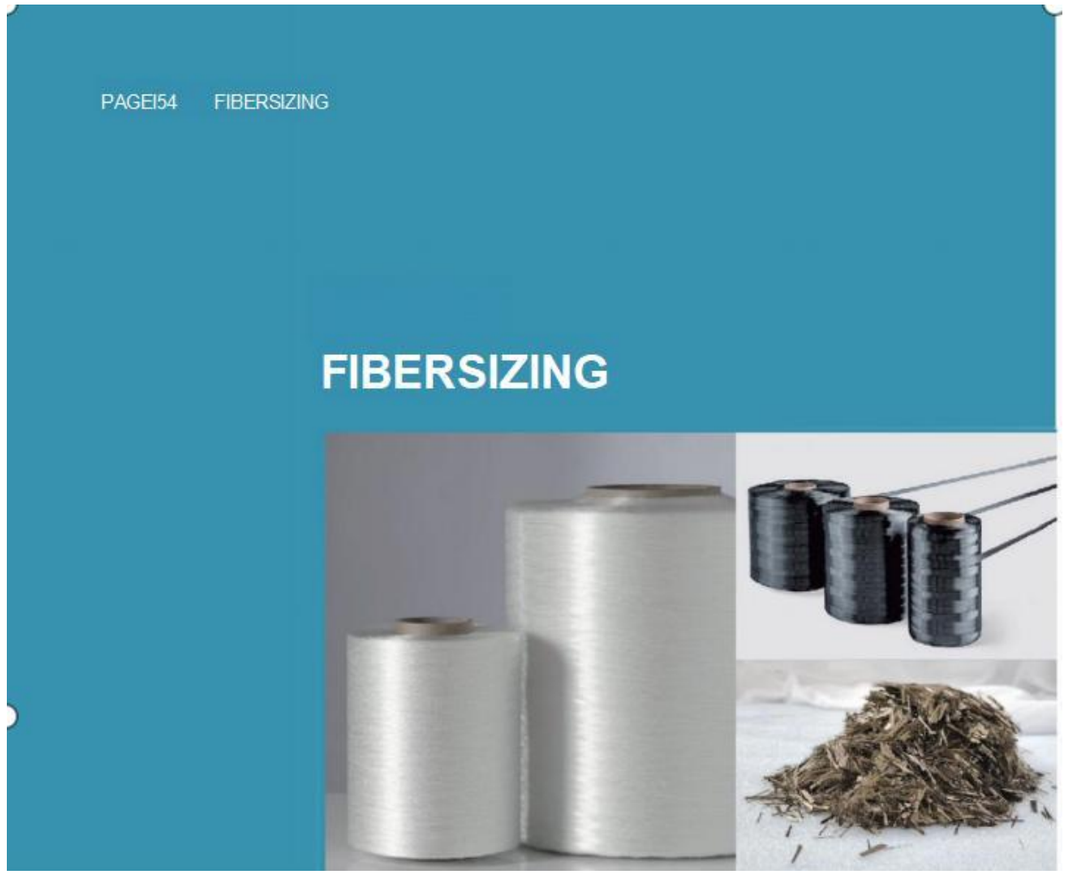
| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| TH-310 | Vinyl ester | 250-350 | 10-20 | 100 | 60 | 4 | | Brominated epoxy vinyl ester resin which meets the double requirements of high flame retardant and high corrosion protection ,ultra high reactivity, suitable for hand layup,filament winding and pultrusion molding process, excellent effect of fiberglass wettability and mechanical strength.compared with the same type resin,TH -310 has excellent flame retardant effect better fiberglass wettability, more excellent mechanical properties and better operating process. The oxygen index of pure resin can reach above 35. |
| TH-320P-1 | Vinyl ester | 250-350 | 10-30 | 100 | 65 | 4 | | Excellent flame retardant effect, better wettability, The Oxygen index of pure resin can reach above 33.Suitable for the production of flame retardant light plate and corrugated plate. |
| TH-380 | Vinyl ester | 350-550 | 10-20 | 100 | 70 | 4 | | flame retardant effect, better wettability, better mechanical properties and better operation process.The oxygen index of pure resin castable body can reach more than 33, which isespecially suitable for the production of composite photovoltaic frames, and has been certified by TUVRHEINLAND) |





## TH-400 SERIES:
## SPECIAL MODIFIED EPOXY VINYL ESTER RESIN

| Name | Type | Visc(mPa.s 25°C) | Gel Time (min) | HDT (°C) | Tensile Strength (MPa) | Elongation (%) | Unnotched Impact Toughness (KJ/m²) | Application & Remarks |
|---|---|---|---|---|---|---|---|---|
| TH-450 | Vinyl ester | 1500-2200 | | 110 | 77 | 7.5 | 18 | Excellent thickening effect,good mechanical strength and chemical corrosion resistance,suitable for SMC, MC and other molding processes.Better wettability, very low volume snrinkage and good handling. |
| TH-450-1 | Vinyl ester | 1800-2400 | | 105 | 80 | 9 | 22 | High impact resistance and fatigue resistance,and excellent thickening effect,suitable for SMC,BMC and other molding processes.Higher impact resistance, better wettability,very low volume shrinkage and good processing |
| TH-450-2 | Vinyl ester | 1800-2400 | | 110 | 80 | 8 | 30 | High impact resistance and fatigue resistance and excellent thickening effect,suitable for SMC,BMC and other molding processes.TH-450-2 has higher impact resistance,better wettability,lower volume shrinkage,and better handling. |
| TH-480 | Vinyl ester | 300-500 | 10-20 | 100 | 70 | 10 | 25 | H-480 has excellent impact resistance and fracture elongation,as well as good mechanical strength and tigue resistance.Excellent impact resistance,better mechanical properties,lower volume shrinkage and Good operating performance. |




## Products

FIBERSIZING

## Application

- Fiberglass
- Carbon fiber
- Basalt fiber



# FIBERSIZING

| Name | Type | Visc(mPa.s 25°C) | Latex solid content | P H Value | Average Particle size(um) | Epoxy Equivalent (solid) | Application & Remarks |
|---|---|---|---|---|---|---|---|
| TH-910 | Bisphenol A polyester emulsion | 70-2000 | 38%±2% | 2～6 | <2 | | Bisphenol A polyester emulsion with Medium molecular weight. Fiberglass roving infiltration agent for pultrusion, winding application,sizing agent for carbon fiber. |
| TH-940 | Bisphenol A polyester emulsion | 70-2000 | 42%±2% | 2～6 | <2 | | Infiltration agent for short felt transparent tile yarn, jet yarn and SMC/BMC yarn,sizing agent for carbon fiber. |
| TH-955 | Bisphenol A polyester emulsion | 300-2000 | 47%±2% | 2～6 | <2 | | High molecular weight bisphenol A type polyester emulsion.Infiltration agent for spray yam,cut felt yam transparent sheet yam,BMC/SMC yam and other,sizing agent for carbon fiber |
| TH-958 | Bisphenol A polyeste emulsion | <5000 | 47%±2% | 2～6 | <2 | | High molecular weight bisphenol A type polyester emulsion Infiltration agent for short felt transparent tile yarn,jet yarn and SMC/BMC yarn,sizing agent for carbon fiber. |
| TH-966 | Bisphenol A polyester emulsion | 30-2000 | 45%±3% | 2～6 | <2 | | Infiltration agent for SMC/BMC yarn,sizing agent for carbon fiber. |
| TH-810 | Bispheno A polyester emulsion | 30-2000 | 45%±2% | 3～7 | <2 | 220-280 | Infiltration roving agent for Winding, Pultrusion,Flocked cloth, multiaxial fabric,sizing agent for carbon fiber. |
| TH-820 | Bisphenol A polyester emulsion | 30-2000 | 45%+2% | 3～7 | <2 | 220-300 | Infiltration roving agent for Winding.Pultrusion,Flocked cloth,multiaxial fabric;sizing agent for carbon fiber. |
| TH-830 | Bisphenol A type epoxy solid emulsion | 70-3000 | 25%±2% | 3～7 | <2 | 450～650 | Infiltration roving agent for Winding,Pultrusion,Flocked cloth,multiaxial fabric;sizing agent for carbon fiber. |
| TH-860A | Bisphenol A type epoxy solid emulsion | 70-2000 | 45%±2% | 5-9 | <2 | 1500-2500 | Used for Jet yarn,BMC/SMC chopped felt yarn,sizing agent for carbon fiber. |
| TH-611 | Nonionic polyurethane mulsior alicyclic type | <450 | 41%±2% | 7.5-9.5 | <2 | | Infiltration agents for reinforced thermoplastics with fiberglass chopped yarn,roving auxiliary film former, sizing agent for carbon fiber. |
| TH-831 | Bisphenol A type epoxy solid emulsion | 30-2000 | 36%±2% | 5~9 | <2 | 450-650 | Carbon fiber sizing agent |
| TH-954 | Bisphenol A polyester emulsion | 30-2000 | 40%±2% | 2~6 | <2 | | High molecular weight bisphenol A type polyester emulsion.Infiltration agent for short felt transparent tile yarn, jet yarn and SMC/BMC yarn. |

# GELCOAT AND PIGMENT



## Products

GELCOAT AND PIGMENT 57

## KEY POINT

Mainly used with Unsaturated Polyester Resin and Vinyl Ester Resin.
Customized color:Color can be customized according to color chart (such as RAL color chart)
Made of imported toner and special carrier resin.Good dispersibility and stable color.
We can offer base resin for customers to mix their expected color



## GELCOAT AND PIGMENT

| Name | Type | Visc (mPa.s 25°C) | Thixotropic Index(≥) | Elongation at Break (%) | Impact Toughness ($KJ/m^2$) | Distortion Temperature (℃) | Barcol Hardness | Speciality | Operation Process |
|---|---|---|---|---|---|---|---|---|---|
| DS306S | Isophthalic | 5000-8000 | 6 | 3.5 | 4 | 75 | 45 | High hardness,good transparency water resistance, weather resistance and other characteristics, excellent comprehensive performance. | Spray up |
| DS306S-XXXX | Isophthalic | 5000-8000 | 6 | 3.5 | 4 | 75 | 45 | High hardness,good transparency water resistance,weather resistance and other characteristics,excellent comprehensive performance. | Spray up |
| DS396H | Orthophthalic | 18000-20000 | 6.5 | 3 | 8.5 | 65 | 41 | High hardness,good weatherability, good glossy. | Hand Lay-up |
| DS396H-XXXx | Orthophthalic | 18000-20000 | 6.5 | 3 | 8.5 | 65 | 41 | High hardness,good watherability. good glossy | Hand Lay-up |
| DS309S | ISO-NPG | 5500-7500 | 4 | 4 | 10 | 95 | 45 | High hardness,good transparency. excellent water resistance and weatherability | Spray up |
| DS309S-XXXX | ISO-NPG | 5500-7500 | 4 | 4 | 10 | 95 | 45 | High hardness,good transparency. excellent water resistance and weatherability | Spray up |
| TH-3110S | Epoxy Viny Ester Type | 4500-7500 | 7 | 5 | | 110 | 45 | Excellent operation and processing performance,excellent mechanical and physical properties,easy construction,used for FRP molds with high performance requirements. | Spray up |
| TH-3110S-XXXX | Epoxy Vinyl Ester Type | 4500-7500 | 7 | 5 | | 110 | 45 | Excellent operation and processing performance, excellent mechanical and physical properties, easy construction,used for FRP molds with high performance requirements. | Spray up |

# MODIFIED POLYURETHANE RESIN



## Products

MODIFIED POLYURETHANE RESIN 59

## Advantages

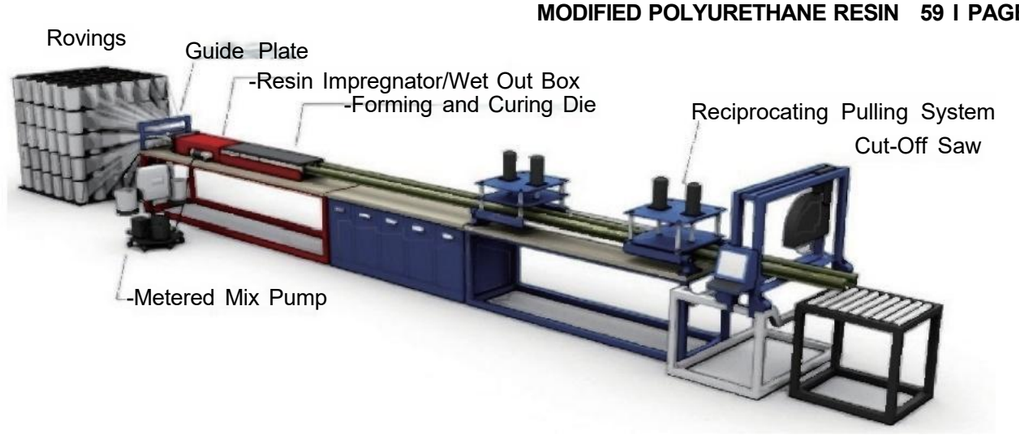
The pultrusion speed of the profile can reach 1.2m/min

The bidirectional oxygen index of the profile can reach more than 32
Balanced flame retardant and mechanical properties

Very high mechanical properties and fatigue resistance
Halogen-free flame retardant

Extremely high flame retardant performance,has reached 3mm V-0 (UL-94 standard),
Anti-oxidation and anti-UV properties can be introduced






## MODIFIED POLYURETHANE RESIN

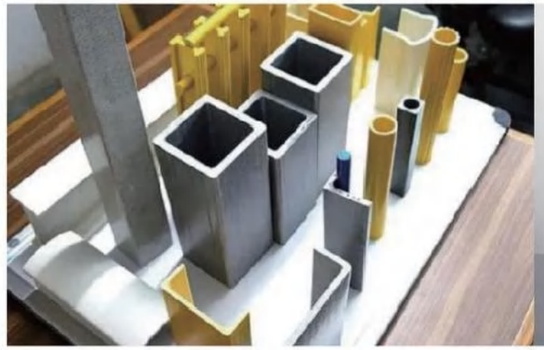
| Name | Advantage |
|---|---|
| PUR 1015 | Balanced fame retardant and mechanical properties |
| PUR 1015N | Antioxidant and anti-UV propertiesare incorporated based on PUR 1015 |
| PUR 1012 | Halogen-free fame retardant |
| PUR 1016 | Extremely high mechnical performance and fartigue resistance |
| PUR 1017 | Special resin for solar frame,balance of strength and viscosity,with TUV certification |
| PUR 1018 | Ultimate weather resistance |
| PUR 1020 | Extremely high fame retardant performance,reaching 3mm V-0(UL-94 standard) |



# Products


PULTRUSION 61
FILAMENT WINDING-AMINE SYSTEM 62
FILAMENT WINDING-ANHYDRIDE SYSTEM 63





## Extrusion resin series:

### Suitable for carbon fiber and glass fiber pultrusion products

- The mixing viscosity is low and has good wettability against glass and carbon fibers
- It has a long operating time and good manufacturability.
- The curing speed is fast,and the pultrusion speed can be adjusted according to the size and shape of the part.
- The heat resistance of the product can reach 100-180℃.

| Name | | Tg(°C) | Viscosity (cp 25°C) | Specific gravity, (g/cm³) | mixing ratio | Mixed Viscosity (cp 25°C) | Gel time (sec/150°C) |
|---|---|---|---|---|---|---|---|
| 2001 | Reaster-EP-2001A | ≥110 | 5000-12000 | 1.10-1.20 | EP-2001A/B/Release agent=100/80/2 | 300-800 | 50-90 |
| | Reaster-EP-2001B | | 30-100 | 1.10-1.30 | | | |
| 2003 | Reaster-EP-2003A | ≥150 | 3000-6000 | 1.10-1.20 | EP-2001A/B/Release agent=100/80/2 | 300-800 | 90-150 |
| | Reaster-EP-2003B | | 40-100 | 1.10-1.30 | | | |
| 2004 | Reaster-EP-2004A | ≥200 | 2000-5000 | 1.10-1.20 | EP-2001A/B/Release agent=100/80/2 | 500-1200 | 60-120 |
| | Reaster-EP-2004B | | 50-150 | 1.10-1.30 | | | |





## Winding resin (amine system):

### Suitable for carbon fiber and glass fiber winding products

- The mixing viscosity is low and the manufacturability is good
- It has good wettability to glass fiber and carbon fiber
- The product has good toughness and excellent product performance stabiity

| Name | | Viscosity (cp 25°C) | Specific gravity, (g/cm³) | mixing ratio | Mixed Viscosity (cp 25°C) | Gel time (sec/150°C) |
|---|---|---|---|---|---|---|
| 2101 | Reaster-EP-2101A | 2000-5000 | 1.10-1.20 | EP-2101A/EP-2101B=3/1 | 200-600 | 10-20 |
| | Reaster-EP-2101B | 10-50 | 0.90-1.10 | | | |
| 2102 | Reaster-EP-2102A | 2000-4000 | 1.10-1.20 | EP-2101A/EP-2101B=3/1 | 300-800 | 5-15 |
| | Reaster-EP-2102B | 20-100 | 0.90-1.10 | | | |

| Name | Tensile strength Mpa | Elongation at break % | Tensile modulus Mpa | Flexural strength Mpa | Flexural modulus Mpa | TG °C | Curing process |
|---|---|---|---|---|---|---|---|
| Reaster-EP-2101 | ≥70 | ≥7.0 | ≥2800 | ≥110 | ≥3200 | ≥70 | 50°C2h+80°C6h |
| Reaster-EP-2102 | ≥80 | ≥8.0 | ≥2500 | ≥120 | ≥2800 | ≥120 | 50°C2h+80°C1h+130°C5h |





## Winding resin (anhydride system):

### Suitable for carbon fiber and glass fiber winding products

- The mixing viscosity is low and the pot life is long
- It has good wettability to glass fiber and carbon fiber
- Good heat resistance,up to 110℃~200℃

| Name | | Viscosity (cp 25°C) | Specific gravity, (g/cm³) | mixing ratio | Mixed Viscosity (cp 25°C) | Gel time (sec/150°C) | TG °C |
|---|---|---|---|---|---|---|---|
| 2201 | Reaster-EP-2201A | 3000-6000 | 1.10-1.20 | EP-2201A: EP-2201B=100:90 | 500-1500 | 60-100 | ≥125 |
| | Reaster-EP-2201B | 50-200 | 1.10-1.30 | | | | |
| 2202 | Reaster-EP-2202A | 3000-6000 | 1.10-1.20 | EP-2202A: EP-2202B=100:100 | 500-1500 | 60-80 | ≥145 |
| | Reaster-EP-2202B | 50-200 | 1.10-1.30 | | | | |
| 2203 | Reaster-EP-2203A | 2000-5000 | 1.10-1.20 | EP-2203A: EP-2203B=100:110 | 500-1500 | 70-120 | ≥165 |
| | Reaster-EP-2203B | 50-200 | 1.10-1.30 | | | | |
| 2204 | Reaster-EP-2204A | 3000-6000 | 1.10-1.20 | EP-2204A: EP-2204B=100:120 | 500-1500 | 40-80 | ≥205 |
| | Reaster-EP-2204B | 50-200 | 1.10-1.30 | | | | |

# Contact Information

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