

**常州联拓复合材料有限公司**  
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**659 - Filament winding pipe/ Tank**

DS-659 is an orthophthalic type unsaturated polyester resin with medium viscosity, medium reactivity, excellent glass imbibition to glass fibers and defoaming performance, particularly applicable to winding glass fibers reinforced, sand mixed pipes and glass steel products, with the advantages of high toughness, good water resistance etc.

Technical Indexes of Liquid Resin			
Item	Unit	Value	Standard
Appearance		Thixotropic viscous liquid	Visual
Acid Value	mgKOH/g	18-20	GB2895-82
Viscosity (brookfiled) 25°C	mPa.S	500-700	GB7193.1-87
Gel Time	min	6-10	GB7193.6-87
Exothermic peak	°C	165-175	
Hardening time	min	8-15	
Solid content	%	60-65	GB7193.3-87
80°C stability	h	48	GB7193.5-87

Note: Gel Time is 25°C; in air bath; 0.5ml cobalt isocaprylate solution and 0.5 ml MEKP solution were added into 50 g resin

Performance Indexes of Resin Casting Substance			
Item	Unit	Value	Standard
Barcol hardness $\geq$	Barcol	42	GB3854-1983
Tensile strength $\geq$	MPa	65	GB2568-1995
Tensile modulus $\geq$	MPa	2500	GB2568-1995
Elongation at break $\geq$	%	5.5	GB2568-1995
Flexural strength $\geq$	MPa	90	GB2570-1995
Flexural modulus $\geq$	MPa	2800	GB2570-1995
Impact strength $\geq$	KJ/m <sup>2</sup>	13	GB2571-1995
H.D.T $\geq$	°C	75	GB1634-1989

Note: Environmental Temperature for Experiment: 23±2°C; relative humidity: 50±5%

**Packing and Storing**

DS-659: Packed in metal pail of 220 KG net weight with shelf life of 3-6 months at 20°C at ventilated places; avoiding direct sunlight and heat or fire.

Note: The data were tested according to GB standard. Influenced by many factors in the process of fabrication, necessary researches by user are not exclusive. Legally, no warranties for some performances of product are applicable to one specific use, and the rights to amend the materials are reserved.