REICHHOLD

PRODUCT BULLETIN

August 2012

DION® 600-060

Low Profile Isophtalic Pultrusion Resin

DESCRIPTION

DION® 600-060 is a reactive unsaturated polyester resin containing special thermoplastic additives, characterizing it as one-pack Low Profile resin.
The resin is clear to slightly hazy.

APPLICATION

- DION® 600-060 is designed for pultrusion, especially for pultruded laminates requiring low shrinkage, smooth surfaces and good dimensional stability. Good pigmentation is limited to light and pastel colours.
- DION®600-060 is used when standard Low Profile effect combined with good toughness is required

FEATURES	BENEFITS
• Low Shrink	• Surface smoothness, dimension stability and reduced internal stress cracks
• High reactivity	• Good productivity
• Low viscosity	• Good fiber wetting properties
• Good heat resistance	• Can be used for Class F (Thermal heat ageing Index 155-180°C) laminates
• Base resin for this system conforms to: Type 1140 according to DIN 16946/2; Group 2 according to DIN 18 820/1;	• Good mechanical properties • Good elongation at break • High Heat Distortion Temperature

TYPICAL PROPERTIES

PHYSICAL DATA IN LIQUID STATE AT 23°C

Properties	Unit	Value	Test method
Viscosity - Brookfield LV sp 2/12 rpm	mPa·s(cP)	600-900	ASTM D 2196-86
Density	g/cm³	1,10-1,13	ISO 2811-2001
Acid number (max.)	mgKOH/g	23	ISO 2114-1996
Styrene content	% weight	42±2	B070
Flash point	°C	32	ASTM D 3278-95
Reactivity at 80°C, 2% BPO (50%) Time 65-90°C	Minutes	6-9	ISO 584-1982
Time 65°C-Peak exotherm	Minutes	7-11	ISO 584-1982
Peak exotherm	°C	200-230	ISO 584-1982
Storage stability from date of manufacture	Months	4	G180

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This resin should not be diluted further with styrene as the Low Shrink properties may be aversively affected.

As this resin contains thermoplastic Low Profile Additives, it cannot be molded non-reinforced. Consequently the TYPICAL NON-REINFORCED CASTING PROPERTIES can not be given.
However, the fully post-cured properties of the BASE RESIN SYSTEM for the Low Profile resin system can be given as below:

Properties	Unit	Value	Test method
Tensile strength	MPa	55	ISO 527-1993
Tensile elongation	%	2	ISO 527-1993
Flexural strength	MPa	115	ISO 178-2001
Flexural modulus	MPa	3600	ISO 178-2001
Heat distortion temperature	°C	105	ISO 75-1993
Glass Transition temperature	°C	125	ISO 6721-2012

STORAGE

To ensure maximum stability and maintain optimum resin properties, resin should be stored in closed containers at temperatures below 24°C/75°F and away from heat ignition sources and sunlight. Resin should be warmed to at least 18°C/65°F prior to use in order to assure proper curing and handling. All storage areas and containers should conform to local fire and building codes. Copper or copper containing alloys should be avoided as containers. Store separate from oxidizing materials, peroxides and metal salts. Keep containers closed when not in use. Inventory levels should be kept to a reasonable minimum with first-in, first-out stock rotation.

Additional information on handling and storing unsaturated polyesters is available in Reichhold's application bulletin "Bulk Storage and Handling of Unsaturated Polyester Resins." For information on other Reichhold resins or initiators, contact your sales representative or authorized Reichhold distributor.

SAFETY

READ AND UNDERSTAND THE MATERIAL SAFETY DATA SHEET BEFORE WORKING WITH THIS PRODUCT

Obtain a copy of the material safety data sheet on this product prior to use. Material safety data sheets are available from your Reichhold sales representative. Such information should be requested from suppliers of all products and understood prior to working with their materials.

DIRECTLY MIXING ANY ORGANIC PEROXIDE WITH A METAL SOAP, AMINE, OR OTHER POLYMERIZATION ACCELERATOR OR PROMOTER WILL RESULT IN VIOLENT DECOMPOSITION