INTERPLASTIC CORPORATION
Thermoset Resins Division

CORVE8730

Vinyl Ester Resin

Technical Data Sheet

CORVE8730 is a non-promoted, epoxy novolac-based vinyl ester resin. This high cross-link density resin has a heat distortion point of 280ºF (138ºC) and exceptional chemical resistance. Typical uses are filament winding and hand lay-up of reinforced plastic tanks, pipe and process equipment, etc. Its high heat distortion point also makes this resin an outstanding choice for high temperature applications.

FEATURES	BENEFITS
• High Physical Properties	• Makes extremely tough composites
• Highly Versatile Viscosity Properties	• Formulated for spray-up and hand lay-up needs
• Non-Promoted Resin System	• Able to adapt to customer-specific conditions
• Outstanding Corrosion Resistance	• Resists caustic and solvent with hydrolytic stability
• High Heat Distortion Resistance	• Maintains dimensional stability

LIQUID PROPERTIES	RESULTS
Viscosity, Brookfield Model LV #3 Spindle @ 60 rpm, 77°F (25°C), cps	250-400
100 grams resin @ 77°F (25°C), promoted with 0.20 gram of 12% Cobalt, initiated with 1.2% Hi-Point 90 by volume *	
Gel Time, min:sec	16:00-19:00
Gel to Peak Time, min:sec	6:00-11:00
Peak Exotherm	370-410°F (187-210°C)
Non-Volatile Content, %	62.0-66.5
Hazardous Air Pollutant (Styrene) Content, %	33.5-38.0
Specific Gravity	1.06-1.09

TYPICAL PROPERTIES

Thickness	1/8 inch (3.2 mm) Casting			
Construction	**Not Applicable**			
Flexural Strength, ASTM D790	18,400	psi	127	MPa
Flexural Modulus, ASTM D790	5.2×10^5	psi	3,586	MPa
Tensile Strength, ASTM D638	10,400	psi	72	MPa
Tensile Modulus, ASTM D638	5.3×10^5	psi	3,655	MPa
Tensile Elongation, ASTM D638	3.0	%	3.0	%
Barcol Hardness, 934-1 gauge, ASTM D2583	38		38	
Heat Distortion Temperature, ASTM D648	280	°F	138	°C
Specific Gravity, ASTM D792	1.19		1.19	

* The gel time and reactivity will vary due to the type and concentration of Free Radical Initiator (catalyst), shop temperature, humidity, and type of fillers used. In order to meet your individual needs consult our technical sales representative for assistance. If using methyl ethyl ketone peroxide (MEKP) to gel and cure CoRezyn® vinyl esters, we recommend only these four: Cadox® L-50a (Akzo Nobel); Luperox® DHD-9 (Arkema); Hi-Point® 90 (Pergan); or Norox® MEKP-925 (Syrgis). These must be used at the appropriate percentage and suitable temperature. Contact your Interplastic Corporation representative for assistance.

TYPICAL 100-GRAM CUP GEL TIME CHART FOR LOWER EXOTHERMS WITH CUMENE HYDROPEROXIDE (CHP)

Temperature (°F/°C)	12% Cobalt (Wt %)	DMA (Wt %)	2, 4 Pentanedione (Wt %)	CHP (Wt %)	Gel Time* (min)
60/16	0.2	0.2	0	1.5	34
60/16	0.2	0.1	0	2	39
60/16	0.2	0.1	0	1.5	48
77/25	0.2	0.2	0	1.5	22
77/25	0.3	0.1	0	1.5	24
77/25	0.2	0.1	0	1.5	29
77/25	0.2	0.1	0	2	30
77/25	0.2	0.1	0.05	1.5	43
77/25	0.3	0.1	0.1	1.5	48
77/25	0.2	0.1	0.1	2	55
77/25	0.2	0.2	0.1	1.5	51
77/25	0.2	0.1	0.1	1.5	63
77/25	0.2	0.1	0.15	1.5	85
90/32	0.2	0.1	0	1.5	15
90/32	0.2	0.1	0.05	1.5	26
90/32	0.2	0.1	0.1	1.5	30

*Gel time is run in a 100-gram mass at the specified temperature.

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Revised: 2/12