



INTERPLASTIC CORPORATION
Thermoset Resins Division

CORVE8300

Vinyl Ester Resin

Technical Data Sheet

CORVE8300 is a non-promoted, corrosion resistant, bisphenol A epichlorohydrin based, vinyl ester resin. Its uses include tank relining, pipe fabrication, tank construction, etc. CORVE8300 is manufactured from ingredients listed as acceptable in FDA Code of Federal Regulation Title 21, CFR 177.2420. This resin may be safely used as a component of articles intended for single or repeated use in contact with food as prescribed in the regulation. See "CoREZYN® Vinyl Ester Resins" publication 11/06 B-006c under CORVE8300 for corrosion recommendations and general information.

FEATURES	BENEFITS
• High Physical Properties	• Makes extremely tough composites
• Highly Versatile Viscosity Properties	• Formulated for spray-up and hand lay-up needs
• Outstanding Corrosion Resistance	• Resists caustics and solvents 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	400-600
100 grams resin @ 77°F (25°C), promoted with 0.20 grams of 12% Cobalt and 0.05 grams N, N-Dimethylaniline, catalyzed with 1.2% Hi-Point 90 by volume *	
Gel Time, min:sec	16:00-19:00
Gel to Peak Exotherm Time, min:sec	10:00-15:00
Peak Exotherm	330-360°F (165-182°C)
Non-Volatile Content, %	53.5-56.0
Hazardous Air Pollutant (Styrene) Content, %	44.0-46.5
Specific Gravity	1.02-1.05

TYPICAL PROPERTIES				
Thickness	1/8 inch (3.2 mm) Casting		1/8 inch (3.2 mm) Laminate	
Construction	Not Applicable		4 Plies 1.5 oz/ft ² , 30% Glass Mat	
Flexural Strength, ASTM D790	19,400 psi	134 MPa	23,600 psi	163 MPa
Flexural Modulus, ASTM D790	4.5 x 10 ⁵ psi	3,100 MPa	12.0 x 10 ⁵ psi	8,276 MPa
Tensile Strength, ASTM D638	11,600 psi	80 MPa	16,000 psi	110 MPa
Tensile Modulus, ASTM D638	4.7 x 10 ⁵ psi	3,240 MPa	11.0 x 10 ⁵ psi	7,586 MPa
Tensile Elongation, ASTM D638	5.0 %	5.0 %	5.0 %	5.0 %
Barcol Hardness, 934-1 gauge, ASTM D2583	35	35	--	--
Heat Distortion Temperature, ASTM D648	210 °F	99 °C	-- °F	-- °C
Compressive Strength, ASTM D695	-- psi	-- MPa	30,000 psi	207 MPa
Compressive Modulus, ASTM D695	-- psi	-- MPa	9.0 x 10 ⁵ psi	6,207 MPa

* 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 brands: 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 PROPERTIES, continued		
Thickness	1/4 inch (6.4 mm) Laminate	
Construction	40% Reinforcement**	
Flexural Strength, ASTM D790	33,700 psi	232 MPa
Flexural Modulus, ASTM D790	11.1 x 10 ⁵ psi	7,655 MPa
Tensile Strength, ASTM D638	25,600 psi	177 MPa
Tensile Modulus, ASTM D638	16.1 x 10 ⁵ psi	11,103 MPa

** Laminate Sequence: Veil, 1.5oz/ft² mat, 1.5oz/ft² mat, 24oz/ft² woven roving, 1.5oz/ft² mat, 24oz/ft² woven roving, 1.5oz/ft² mat

All specifications and properties specified above are approximate. Specifications and properties of material delivered may vary slightly from those given above. Interplastic Corporation makes no representations of fact regarding the material except those specified above. No person has any authority to bind Interplastic Corporation to any representation except those specified above. Final determination of the suitability of the material for the use contemplated is the sole responsibility of the Buyer. The Thermoset Resins Division's technical sales representatives will assist in developing procedures to fit individual requirements.

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