



Vinyl Ester Resin

Part # - 1110

Tough and Corrosion Resistant

This vinyl ester resin is formulated for maximum corrosion resistance to most fuels, vapors, and both acidic and basic chemicals. It is also heat resistant and blended for toughness. These qualities make it perfect for repairing tank linings, blistering boat hulls, as well as fabricating tough all-around parts. Shelf Life Limited to 3 months. (Hetron 922)

Formulated for 1.25% MEKP.

APPLICATIONS AND USE

1110 resin can be used for hand lay-up and spray-up, filament winding, flake glass, and filled lining and coating compounds.

DESCRIPTION

1110 is a low viscosity, promoted vinyl ester. The raw materials used in the manufacture of this resin are listed as acceptable in FDA regulation Title 21 CFR 177.2420 for repeated use in contact with food subject to user's compliance with the prescribed limitations of that regulation. 1110 resin gives final products with:

- Excellent corrosion resistance
- Excellent impact strength
- High tensile elongation
- "FDA" applications

Typical Liquid Resin Properties

Property ⁽¹⁾ at 25°C(77°F)	Value	Unit
Solids	52	%
Viscosity, Brookfield #2 spindle @ 30 rpm	275	mPas (cps)
Specific Gravity	1.03	gm/cc
Appearance	Cobalt promoted	

Information present herein has been compiled from sources considered to be dependable and is accurate and reliable to the best of our knowledge and belief but is not guaranteed to be so. Nothing herein is to be construed as recommending any practice or any product violation of any patent or in violation of any law or regulation. It is the user's responsibility to determine for himself the suitability of any material for a specific purpose and to adopt such safety precautions as may be necessary. We make no warranty as to the results to be obtained in using any material and, since conditions of use are not under our control, we must necessarily disclaim all liability with respect to the use of any material supplied by us.

©Copyright 2010 Fibre Glast Developments Corporation

Fibre Glast Developments Corporation
385 Carr Drive
Brookville, Ohio 45309
Phone – 800.214.8579
Fax – 937.833.6555
www.fibreglast.com



PDCT-PDS-00061-D-10/10-DA

Typical Mechanical Properties

Property ⁽¹⁾ of cured casting ⁽³⁾ at 25°C (77°F)	Value (SI)	Value (US)	Method
Barcol Hardness	35	35	ASTM D2583
Tensile Strength	82 MPa	12,000 psi	ASTM D638
Tensile Modulus	3720 MPa	5.4 psi x 10 ⁵	ASTM D638
Tensile Elongation at Yield	4.6%	4.6%	ASTM D638
Tensile Elongation at Break	7.9%	7.9%	ASTM D638
Flexural Strength	131 MPa	19,000 psi	ASTM D790
Flexural Modulus	3450 Mpa	5.0 psi x 10 ⁵	ASTM D790
Heat Distortion Temperature	98°C	209°F	ASTM D648

(3) Catalyzed with 1.25% MEKP, cured at room temperature for 24 hours and postcured for 2 hours at 138°C (280°F).

(4) Registered trademark of Atofina Chemicals, Inc.

Laminate Thickness (mm)	Temp. (°C)	Ten Str (MPa)	Ten Mod (MPa)	Flex Str (MPa)	Flex Mod (MPa)
3.18 (1 veil, 2 mats; 25% glass)	25	92	6830	140	5240
	93	142	9520	211	8690
		121	183	11,860	208
6.35 (1 veil, 5 mats; 2 W.R.; 39% glass)	121	144	8480	156	6000
	149	72	524	35	900
		25	159	11,930	180
12.7 (1 veil, 8 mats; 4 W.R.; 42% glass)	93	148	15,310	210	8000
	121	125	6830	54	2410
		149	59	5240	23

Laminate Thickness (in)	Temp. (°F)	Ten Str (psi)	Ten Mod (psi x 10 ⁵)	Flex Str (psi)	Flex Mod (psi x 10 ⁵)
.0125 (1 veil, 2 mats; 25% glass)	77	13,300	9.9	20,300	7.6
	200	20,600	13.8	30,600	12.6
		250	26,500	17.2	30,200
0.25 (1 veil, 5 mats; 2 W.R.; 39% glass)	250	20,900	12.3	22,600	8.7
	300	10,400	7.7	5100	1.3
		77	23,100	17.3	26,100
0.50 (1 veil, 8 mats; 4 W.R.; 42% glass)	200	21,400	22.2	30,400	11.6
	250	18,100	9.9	7800	3.5
		300	8,600	7.6	3300

Information present herein has been compiled from sources considered to be dependable and is accurate and reliable to the best of our knowledge and belief but is not guaranteed to be so. Nothing herein is to be construed as recommending any practice or any product violation of any patent or in violation of any law or regulation. It is the user's responsibility to determine for himself the suitability of any material for a specific purpose and to adopt such safety precautions as may be necessary. We make no warranty as to the results to be obtained in using any material and, since conditions of use are not under our control, we must necessarily disclaim all liability with respect to the use of any material supplied by us.

©Copyright 2010 Fibre Glast Developments Corporation

Fibre Glast Developments Corporation
385 Carr Drive
Brookville, Ohio 45309
Phone – 800.214.8579
Fax – 937.833.6555
www.fibreglast.com



PDCT-PDS-00061-D-10/10-DA