

Vinyl Ester Resin Specification

1. Typical properties of liquid resins

Property	Type			
	601	601T	601A	601TA
Viscosity, Cp, 25°C	200~700	200~700	200~700	200~700
Gel Time ^{*1} , minutes, 25°C	20~30	20~30	20~30	20~30
Styrene Content, %	43~47	47~51	43~47	47~51
Thixotropy Index, 25°C	—	1.5~2.5	—	1.5~2.5
Stability, Dark at 25°C (month)	6	3	3	3

^{*1} Curing system : Promoter, Co-oct (Co 6%) =0.4%

Catalyst, MEKPO (PO 55%) =1.6%

When ambient temperature is below 20°C, adding the appropriate dose of DMA to resin is recommended.

It can reduce the reaction time to meet the operational requirements.

2. Typical properties of cured resins (601)

Property	Unfilled Casting	Contents 30% of fiberglass mat (No. 450 3-ply)
Flexural Strength, kg/mm ²	13.8	17
Flexural Modulus, kg/mm ²	357	649
Tensile Strength, kg/mm ²	8.5	9.8
Tensile Modulus, kg/mm ²	344	676
Fracture Elongation, %	4.4	1.7
Hardness, Barcol 934-1	41	N/A
Heat Deflection Temp., °C	103	N/A

Curing schedule : Samples were cured at room temperature for 24 hours and then post cured at 120°C for another 2 hours.

Process of manufacturing	Vinyl ester resin is produced by the ring-opening addition reaction of epoxy resins with methacrylic acid, and then it is diluted in styrene monomer. It is a thermosetting resin.
Structural characteristics	En Chuan 601 is a low viscosity Bisphenol-A epoxy vinyl ester resin. It has excellent mechanical properties and chemical resistance similar to epoxy resin, and has easy processing characteristics similar to unsaturated polyester resin.

Curing schedule : Samples were cured at room temperature for 24 hours and then post cured at 120°C for another 2 hours.

The data are intended as a general guide only and do not necessarily represent results that may be obtained elsewhere.

Features	(1) Low viscosity. (2) Excellent mechanical properties and easy processing. (3) Excellent corrosion resistance to a wide range of acids, alkalis and salt solutions. (4) Comply with FDA regulation 21 CFR 177.2420 when treated well. (5) Obtained the DNV Type Approval Certificate.
Applications	(1) Raw material tanks, pipe and process equipment. (2) Most commercial FRP fabrication processes. (3) Anti-corrosion tank linings and coatings. (4) Yacht, Wind turbine blade.

Sample request & Technical service

e-mail : rd@enchuan.com.tw