



# CREST COMPOSITES & PLASTICS PVT. LTD.

*Product Data*

## C'POL- 701A

Product Data Sheet dated 22/10/2013

revision: 02

### ❖ Product Description :

**C'POL - 701A** is Vinyl Ester Resin used in the fabrication of a wide range of FRP structures by hand lay up, filament winding and other conventional fabricating techniques. Structures made with C'POL-701A possess outstanding resistance to both acids and alkalis at room and elevated temperatures besides having resistance to crazing and excellent electrical and thermal insulation properties.

### ❖ Salient Features :

Vinyl Ester Resins are ester derivatives of epoxy resins combining the advantages of epoxies and polyesters. They possess higher flexibility like that of epoxy and ease of processing like that of polyesters. They also offer Superior chemical resistance to most chemicals like that of Bisphenol Polyesters.

Vinyl Ester Resins are exceptionally reactive and hence, cure rapidly resulting in good green strength.

### ❖ Physical Properties Of Liquid Resins:

- Colour & Appearance : Greenish Liquid
- Viscosity @ 25C. (cps.) : 350 ± 50
- Acid Value (mgs. KOH/g.) : 10 maximum
- Specific Gravity @ 25C : 1.04 ± 0.01
- Monomer content (wt%) : 45 ± 3
- Gelltime @ 25C. (mts.) : 35 ± 5

(\*with 0.4% Accelerator A.  
0.5% Promoter P. and 1.5% of Catalyst C.)

\*Accelerator A - Solution of 3 % cobalt as cobalt octoate

Promoter P. - Solution of 10% DMA.

Catalyst C - 50% solution of MEKP (9% Active Oxygen) (Akzonobel Butonox M-50).

> Use of other MEKP catalysts or additives may result in different gelltimes

***Catalyst should be never brought in direct contact with accelerator. Explosion is possible.***

Note: Properties are tested in accordance with methods described in IS 6746 -1994.



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### ❖ Mechanical Properties Of Cast Resin

(Cured for 24 hrs. at room temperature followed by for 4 hrs. at 100 c)

❑ Tensile Strength (Kgs./cm. <sup>2</sup> )	: 750
❑ Elongation at break (%)	: 4 - 5
❑ Flexural Strength (Kgs./cm. <sup>2</sup> )	: 1150
❑ Specific Gravity	: 1.15
❑ Heat Distortion Temperature (°C)	: 102
❑ Barcol hardness	: 40
❑ Volume Shrinkage (%)	: 9

### ❖ **Caution**

**C'POL-701A** is of limited shelf life. Storage at 15-20 Deg.C and low humidity in securely closed containers is recommended. Exposure of container to direct sunlight should be avoided at all costs. The material should be consumed as soon as it is received especially when proper storage facility does not exist. Opening the container to allow fresh air contact, and rolling can help in improving the shelf of C'POL-701A. Material is guaranteed for a shelf life of 2 months from manufacturing date when stored at suggested conditions. Storage at higher temperatures will adversely affect shelf life.

### Our Other Vinyl Esters :

- C'POL - 711 - General Purpose with higher HDT
- C'POL - 731 - Superior Vinyl Ester
- C'POL - 741 - Pultrusion Grade Vinyl Ester Resin
- C'POL - 751 - Brominated Vinyl Ester Resin.
- C'POL - 731-30 - Superior Vinyl Ester with higher HDT

### Note.

All the above information is based on the results of tests carried out at our laboratories to the best of our ability. The figures are intended to give a general indication of the characteristics of the product. No liability must be assumed or implied as a result of the data given.

For trade enquiries please call on:

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