



# CREST COMPOSITES & PLASTICS PVT. LTD.

*Product Data*

## C'POL- 231

Product Data Sheet dated 22/10/2013

revision: 02

### ❖ Product Description :

**C'POL-231** is medium reactivity, medium viscosity unsaturated Polyester Resin based on Terephthalic Acid useful in the fabrication of a wide range of FRP structures by hand lay up, filament winding and other conventional fabricating techniques. Laminates made with C'POL - 231 possess excellent resistance to mild corrosive chemicals including water at ambient temperature. The resin compares favourably well to Isophthalic Acid based polyester resin in resistance to Hydrochloric acid, salt solutions and host of other chemicals.

### ❖ Physical Properties Of Liquid Resins:

- Colour & Appearance : Hazy Dark Liquid
- Viscosity @ 25°C. (cps.) : 400 ± 50
- Acid Value (mgs. KOH/g.) : 17 ± 3
- Specific Gravity @ 25°C. : 1.11 ± 0.01
- Monomer content (wt.%) : 38 ± 2
- Geltime @ 25°C. (mts.) : 14 - 20

(\*with 1% Accelerator A.  
and 1.5% Catalyst C.)

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

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

> Use of other MEKP Catalysts or additives may result in different geltimes.

***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 deg. C)

❑ Tensile Strength (Kgs./cm. <sup>2</sup> )	: 550
❑ Elongation at break ( % )	: 2
❑ Flexural Strength (Kgs./cm. <sup>2</sup> )	: 950
❑ Specific Gravity	: 1.22
❑ Heat Distortion Temperature (°C)	: 105
❑ Barcol hardness	: 40
❑ Volume Shrinkage ( % )	: 9

### ❖ **Caution**

**C'POL 231**, like other unsaturated polyester resin has limited shelf life. Storage at 20-25 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. Material is guaranteed for a shelf life of 3 months from manufacturing date when stored at suggested conditions. Storage at higher temperatures will adversely affect shelf life.

### **Our Other Chemical Resistant Resins:**

C'POL - 201 - Medium Reactivity Laminating Resin.

C'POL - 211 - Resin for DMC/SMC applications.

C'POL - 251 - Resin for Pultrusion Processes.

C'POL - 261 - Resilient Terephthalate Resin

C'POL - 271 - Putty Grade Terephthalate Resin

Gel coats of above resins also can be made available.

### **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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