



# ECMALON 4411

## 200-220 kgs

### Packaging

ECMALON Polyester Resin is packed in Epoxy lined drums of standard size containing 200/220 kgs in net weight.

### Shelf Life

ECMALON Polyester Resin 4411 will remain stable for about 3 mnts if stored in the dark & at temperatures below 25°C. Their stability however deteriorates markedly at higher temperatures, especially when they are directly exposed to sunlight. Hence, they should be kept in a cool, dark place. It is advisable to finish it within three months. Inventory levels should be kept to a reasonable minimum with first-in-first-out stock rotation.

## GENERAL PURPOSE ORTHOPHTHALIC RESIN GRADE I

### Description

Ecmalon 4411 is a general purpose unsaturated polyester resin of low reactivity. The resin has medium viscosity, ideally suited for wet layup process.

### Typical Properties Of Liquid Resin

Liquid resin properties are tested in accordance with the procedures described in IS6746-1994 and the values can vary within the tolerances mentioned therein.

### Physical Properties

Appearance	Clear pale yellow to yellow liquid
Viscosity @ 25°C	480+100cps
Specific Gravity @ 27°C	1.13+0.01
Acid Value (mgKOH/Gm)	25+4
Monomer Content (%)	36+3
Gel Time @ 25°C	18+8
Resin 100 Gm	
Cobalt Accelerator 1.5 ml	
MEKP Catalyst 1.5 ml	
Packing Instruction	When the temperature of the Resin is below 50°C; pack the material as per the instructions



address ECMAS RESINS PRIVATE LIMITED  
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fax 040-24360023  
website www.ecmas.in

**Storage And Handling****KEEP DRY**

The materials must be stored in a moisture free, cool and dry environment, away from any direct sun-light.

**STACK HEIGHT**

Please avoid stacking of the containers.

Handle the product(s) very carefully during transportation.

**Safety Precautions**

Wear all PPE's at the time of the application like safety boots, goggles, hand gloves and masks. Avoid contact with skin and eyes. Any direct skin contact with the products should be washed off thoroughly with soap and water.

**CAST RESIN PROPERTIES**

Specimens are fabricated from cast sheets cured at R.T for 24hrs and 4h. @ 90°C.

Property	Unit	Typical Value	Test Method
Tensile Strength	Mpa	45 min	ISO 527
Tensile Modulus	Mpa	-	ISO 527
Elongation at break	%	2.0	ISO 527
Flexural Strength	Mpa	70 min	ISO 178
Flexural Modulus	Mpa	3000	ISO 178
Heat deflection Temp	°C	55	ISO 75
Water absorption [7days]	mgs	70	ISO 62/1980
Hardness	Barcol	40	IS 6746-'94

The above values are provided as general information and not to be construed as specification. Anyhow, they do not represent the values obtainable when used with reinforcements. Ultimate properties of FRP are dependent upon type and content of reinforcement and design and quality of construction of FRP.

**Storage & Handling**

The containers are recommended to be stored in cool and dry conditions for best result. Exposure to sources of heat and sunlight are to be avoided. After drawing the required resin, the container is to be securely closed, left over quantities after usage are not to be transferred back to the container.

The resin contains a volatile monomer with a flash point at 32oC and is of moderate fire hazard. Due precautions to be observed while handling to avoid accidents.

Use of copper, zinc and iron metals in handling can adversely affect the bench life and cure of resin.

Accelerator and Catalyst are not to be mixed together in the resin. Catalyst is added after thoroughly dispersing the accelerator. All direct contacts of accelerator and catalyst are strictly prohibited as they can lead to explosion.

**Quality Policy**

ECMAS is committed to enhance Customer Satisfaction; Conservation of Environment; Adherence to Safe Occupational Health & Safety Practices through its Operations and practices for continual improvement of the established IMS by carrying regular internal audits and complying with applicable Legal and other Requirements.



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NOTE: information in this technical data sheet is to the best of our knowledge true and accurate. However, such conditions under which our products may be used are beyond our control, recommendations are made without warranty or guarantee.

#### Warranty

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The above information is furnished based on the data generated at our works for the benefit of making proper selection of resin. No liability is accepted on the information provided.



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