

POLYCOL 03-027 General Purpose Rigid Unsaturated Polyester Resin

DESCRIPTION

Polycol 03-027 is an orthophthalic-based, rigid-type unsaturated polyester resin with medium reactivity time. It is especially formulated to impart good mechanical properties and a tack-free finish.

APPLICATIONS

Polycol 03-027 is recommended for use in general-purpose FRP application, figurine casting, artificial stone works, wood lamination, skylight roofing, cultured marbles, and etc.

FEATURES AND BENEFITS

- Good mechanical properties
- Early development of Barcol Hardness, thus increasing output
- Fast fiberglass wet-out
- Reducible with styrene monomer

PACKAGING

Polycol 03-027 Unsaturated Polyester Resins are packed in steel drums containing 220 kilograms net weight.

USAGE

Mix well before use. Gel time and curing time depends on the quantities of both accelerator and initiator. Both of them can give a shorter or longer gel time by increasing or decreasing the quantities.

Accelerators must be used within the 0.15-0.60% range while the initiators must be used in the 1 – 2% range,

The accelerator must be completely dissolved before the catalyst is added to avoid direct blending—otherwise, an explosion may result.

Since viscosity increases during storage, styrene monomer can be added to lower it to a desired working application. However, excess of styrene monomer will affect the quality of the resin.

RECOMMENDED STORAGE

This product is stable for three (3) months from the date of production. Indoor storage requires proper ventilation and away from direct sunlight. Storage temperatures should be 15 – 30°C. Rotate stocks as much as possible. Follow the “first-in-first-out rule”.

MATERIAL SAFETY HANDLING INFORMATION

Polycol 03-027 contains ingredients that could be harmful if mishandled. Contact with skin and the eyes should be avoided. Personal protective equipment and clothing such as chemical gloves, gas mask, eye goggles, and laboratory gown should be worn. Keep away from heat or any source of ignition.

Chemrez Technologies, Inc. has Material Safety Data Sheets for each product. The MSDS contain relevant information needed to safeguard your employees from any known safety and health hazard related with our products. Chemrez provides you MSDS for all the products you evaluate or buy. It is also necessary that you get copies of the MSDS of the other raw materials recommended in our technical bulletins. Your employees should have ready access to and be trained well on the proper use of MSDS.

DISCLAIMER

It is in good faith that we offer suggestions on the use of our products and these are based on knowledge we believe are correct and dependable. However, these suggestions are with no guarantee as process and conditions in the use of our products may vary and are beyond our control. We strongly recommend that users of our products verify the appropriateness of our suggestions before using them on a commercial scale.

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TYPICAL PROPERTIES

Liquid Resin Properties	Method	Specification
Color	Visual	Clear
Acid Number, mg KOH/g	ASTM D1980	30 max.
Viscosity at 25°C, cPs (Spindle#4, 60RPM)	JIS K6901	3,600 – 3,800
Gel Time at 30°C, minute	JIS K6901	10 – 15
Time to Peak Exotherm, minute	JIS K6901	15 – 25
Peak Exotherm, °C	JIS K6901	130 – 170
Solids Content, %weight	ASTM D1259	74 – 77
Density, g/cm ³	ASTM D1475	1.10 – 1.20
Shelf-life, months	–	3
<i>Gel Time, Time to Peak Exotherm, and Peak Exotherm are determined by adding 0.20 gram of cobalt octoate (6% concentration) and one gram of hardener or initiator (Butanox M60, MEKP) into one hundred grams of resin.</i>		