

POLYCOR® M1 GPLY 1085-828 Gray Pigmented Spray M1 Gel Coat

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DESCRIPTION

Fire retardant gel coat.

Fire & smoke properties (NF P 92-507): M1F3

(Official approval - Available upon request)

Available in a wide range of colors and may be color matched on request.

APPLICATIONS

Industrial parts, electrical parts, transportation parts requiring improved fire performances.

This gel coat was designed for internal parts only.

LIQUID RESIN PROPERTIES

Specific gravity at 25 °C : 1.52 ~ 1.58 g/cm³

Flash point : 31 °C

Viscosity at 25 °C : 16,000 ~ 19,500 mPa.s

(Brookfield RVF, spindle No.4 @ 4 rpm)

Thixotropy Index (2/20 rpm) : 6.5 ~ 7.5

(Brookfield RVF, spindle No.4, speeds 2 & 20 rpm)

Solid content : 71 ~ 76 %

Hide : Completed at 300 microns

Reactivity

- Temperature : 25 °C

- Catalyst system : 1.8 pbv of MEKP-925

- Resin quantity : 100g

- Gel time : 10 ~ 14 min

- Film cure (500 microns) : 40 ~ 50 min

CURE:

It is recommended to recheck the gel time in the customer's plant because age, temperature, humidity and catalyst will produce varied gel times.

Alternative catalysts may be used including:

Butanox LA, Andonox LCR-S, Peroximon K12,

Luperox DHD, Butanox M50, etc...

The catalyst level should not exceed 3% or fall below 1.2% for proper cure, with 1.8% at 25 °C being ideal. Normally the gel coat film is ready for lamination within 45 - 60 minutes. This time depends on material temperature, room temperature, humidity, air flow, amount of catalyst...

This product should not be used when temperature conditions are below 15 °C (as cure may be adversely affected).

APPLICATION RECOMMENDATIONS

Do not over-mix gel coats. Over-mixing breaks down gel coat viscosity, increasing tendencies to sag, and cause styrene loss, which could contribute to porosity. Gel coats should be mixed once a day for 10 minutes. The gel coat should be mixed to the sides and bottom of container with the least amount of turbulence possible. Air bubbling should not be used for mixing. It is not effective and only serves as a potential for water or oil contamination.

Do not add any material, other than the amount of recommended methyl ethyl ketone peroxide, to this product without the advice of a representative of CCP Composites Korea.

Even with the equipment properly calibrated, potential problems can occur due to poorly atomized catalyst, poor tip

alignment, contaminations and poor application procedures, which will quickly negate all benefits of calibration. Consequently, equipment and application procedures must be monitored on a routine basis to ensure proper application and cure of the gel coat. Ask about and adhere to all equipment manufacturer recommendations

Avoid over-spray settling on mold surfaces by beginning spray pattern closest to the vapor/air exhaust and progressing to the opposite mold end. Maintain recommended spray distances from the mold surface. Closer spray distances or larger tips may be required in hot weather to avoid dry spray buildup.

For best overall performance properties, a wet film thickness of 18 ± 2 mils is recommended as ideal. Films less than 12 mils may not cure properly, may be hard to patch, have more print-through, and are more susceptible to water blisters. Films above 24 mils may pre-release, trap porosity, or generate cracks, and are more subject to weathering discoloration. If water blisters are of great concern (boat hulls), 20 to 24 mils would perform better than a thinner film, but resistance to sag, porosity and cracking could suffer. If weathering (yellowing from sunlight, decks) is of great concern, then thinner films (12 to 16 mils) would perform better, but patch ability, and resistance to print-through and blistering could suffer.

STORAGE LIMITATIONS:

Uncatalyzed, this gel coat has a usage life of 120 days from date of manufacture when stored at 23°C or below in a closed, factory-sealed, opaque container, and out of direct sunlight. The usage life is cut in half for every 15°C over 23°C. Totes of product can have even shorter usage life (66% of the drum shelf life mentioned above).

POLYESTER SAFETY INFORMATION

All sales of products manufactured by CCP Composray Korea and described herein are made solely on condition that our customers comply with applicable health and safety laws, regulations and orders relating to the safe handling of our products in the workplace. Before using, read the following information and both the product label and Material Safety Data Sheet pertaining to each product.

Most polyester products contain styrene. Styrene can cause eye, skin and respiratory tract irritation. Avoid contact with eyes, skin and clothing. Impermeable gloves, safety eyewear and protective clothing should be worn during use to avoid skin and eye contact. Wash personal protective equipment thoroughly after use.

Styrene is a solvent and may be harmful if inhaled. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Extended exposure to styrene at concentrations above the recommended exposure limits may cause central nervous system depression causing dizziness, headaches or nausea and if overexposure is continued indefinitely, loss of consciousness, liver and kidney damage.

Do not breathe or ingest vapour, spray mists and dusts caused by applying, sanding, grinding and sawing polyester products. Wear an appropriate OSHA approved, properly fitted respirator during application and use of these products until vapours, mists and dusts are exhausted, unless air monitoring demonstrates vapours, mists and dusts are below applicable exposure limits. Follow respirator manufacturer's directions for respirator use.

The International Agency for Research on Cancer (IARC) has reclassified styrene as Group 2B "possibly carcinogenic to humans". This new classification is not based on new health data relating to either humans or animals, but on a change in the IARC classification system. The Styrene Information and Research Center does not agree with the reclassification and has published the following statement: Recently published studies tracing 50 000 workers exposed to high occupational levels of styrene over a period of 45 years showed no association between styrene and cancer, no increase in cancer among styrene workers (as opposed to the average among all workers), and no increase in mortality related to styrene.

Styrene is classified by OSHA and the Department of Transport as a flammable liquid. Flammable polyester products should be kept away from heat, sparks and flame. Lighting and other electrical systems in the workplace should be vapour-proof and protected from breakage.

Vapours from styrene may cause flash fire. Styrene vapours are heavier than air and may concentrate in the lower levels of moulds and the work area. General clean air dilution or local exhaust ventilation should be provided in volume and pattern to keep vapours well below the lower explosion limit and all air contaminants (vapour, mists, dusts) below the current permissible exposure limits in the mixing, application, curing and repair areas.

Some polyester products may contain additional hazardous ingredients. To determine the hazardous ingredients present, their applicable exposure limits and other safety information, read the Material Safety Data Sheet for each product

(identified by product code) before using.

FIRST AID: In case of eye contact, flush immediately with plenty of water for at least 15 minutes and get medical attention; for skin, wash thoroughly with soap and water. If affected by inhalation of vapours or spray mist, remove to fresh air. If swallowed, get medical attention.

Polyester products have at least two components that must be mixed before use. Any mixture of components will have hazards of all components. Before opening the packages, read all warning labels. Observe all precautions.

Keep polyester containers closed when not in use. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations. Emptied containers may retain hazardous residue. Do not cut, puncture or weld on or near these containers. Follow container label warnings until containers are thoroughly cleaned or destroyed.

FOR INDUSTRIAL USE AND PROFESSIONAL APPLICATION ONLY.

KEEP OUT OF REACH OF CHILDREN.

DISCLAIMER AND LIMITATION OF LIABILITY

The products sold hereunder shall meet Seller's applicable specifications at the time of shipment. Seller's specifications may be subject to change at any time without notice to Buyer. Buyer must give Seller notice in writing of any alleged defect covered by this warranty (together with all identifying details, including the product code(s), description and date of purchase) within thirty (30) days of the date of shipment of the product or prior to the expiration of the shipment's quality life, whichever occurs first. The warranty described herein shall be in lieu of any other warranty, express or implied, including but not limited to, any implied warranty or merchantability or fitness for a particular purpose. There are no warranties that extend beyond the description on the face hereof.

The Buyer's sole and exclusive remedy against Seller shall be for the replacement of the product or refund of the purchase price in the event that a defective condition of the product should be found to exist by Seller. No other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available to the Buyer.

The sole purpose of this exclusive remedy shall be to provide Buyer with replacement of the product or refund of the purchase price of the product if any defect in material or workmanship is found to exist. This exclusive remedy shall not be deemed to have failed its essential purpose so long as Seller is willing and able to replace the defective products or refund the purchase price.

Final determination of the suitability of the material for the use contemplated, the manner of use and whether the suggested use infringes any patents is the sole responsibility of the Buyer.

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