

POLYCOR®

965CJ036

Tooling Gel Coat Patching Thinner

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Description

POLYCOR® 965CJ036 patching thinner has been developed specifically for patching and surfacing 945 and 965 series vinyl ester tooling gel coat molds and plugs. This product can be used with these tooling gel coats to dilute the gel coat for better spray characteristics. **(Do not use with other tooling gel coat products.)** POLYCOR® 965CJ036 is a non-filled, non-thixotropic base resin; it is the same as those used for 945 and 965 series vinyl ester tooling gel coats, and is completely compatible.

This product contains no surfacing agent, which allows for its use in multiple applications. Because 965CJ036 is composed of the same base material as tooling gel coat, the thinner/gel coat mix can be any ratio desired. A suggested starting point is 50:50. Advantages of using thinner in tooling gel coat are:

- Same properties as the tooling gel coat itself
- Better flow characteristics (less orange peel)
- No possibility of entrapping surfacing agent
- Better cure, because 965CJ036 is promoted the same as 945 and 965 series vinyl ester tooling gel coats.

Typical Properties at 77°F

These values may or may not be manufacturing control criteria; they are listed for a reference guide only. Particular batches will not conform exactly to the numbers listed because storage conditions, temperature changes, age, and testing equipment (type and procedure) can each have a significant effect on the test results. Patching thinner with properties outside of these ranges can perform acceptably.

Test	Value
Flash Point	88°F
Hazardous Air Pollutants (HAPs)	See MSDS for amounts
Volatile Organic Compound	48.9 – 50.9%
Weight per Gallon	8.48 – 8.78 lbs.
Gel Time at 77°F with 2.0% HP-90	16 – 21 minutes



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Refer to the MSDS for handling precautions. MSDS's will be supplied automatically with the first order for material, and are available by product code upon request from CCP's Regulatory Department, and through CCP's website at www.ccpcompositesus.com.

Recommended procedure

Dilute the appropriate tooling gel coat with 965CJ036. Suggested starting point is 50:50, although this ratio can be altered to suit individual needs.

Note: Tooling gel coats are formulated with low hide, and further dilution with this (or any other patching material) will further reduce the hiding

For the final surface coat, a PATCHAID® or wax solution (see data sheets) added to the final mix, can be used, or an oxygen barrier (such as PVA) can be sprayed on top of the final coat.

CCP tooling gel coats are formulated for conventional spray application. Brushing is not recommended. Best results are obtained using siphon or pressure pot spray equipment and batch mixing. The following pressure pot equipment is recommended:

Binks Equipment		DeVilbiss Equipment	
Fluid Nozzle	66 or 67	Gun	P-JGA-502
Air Nozzle	63 PB or 67 PB	Nozzle Combination	704-E
Needle	65 or 67	More than 17 C.F.M. required	
More than 13 C.F.M. required			

Do not spray more than 2.0 pounds per minute of tooling gel coat.

A minimum of 60 psig atomizing pressure (measured at the gun with fan fully open) should be used to properly atomize the tooling gel coat.

Also refer to PB-2 Patching Bulletin, and PB-5 Mold Making Data Sheet.

Cure

It is recommended that gel time be checked in the customer's plant because age, temperature, humidity and catalyst will produce varied gel times. All data referencing gel or cure refers specifically to Arkema Luperox® DDM-9 catalyst. Norac NOROX MEKP-9 and NOROX MEKP-9H, Akzo Nobel CADOX L-50a and CADOX D-50 are expected to yield similar performance. Arkema Luperox® DHD-9, NOROX MEKP-925 and NOROX MEKP-925H, and Crompton HP-90 may yield slightly shorter gel and cure times.

The recommended catalyst range is 1.5% to 2.5%. Ideal catalyst level is 2.0% at 77°F. Do not exceed 2.5%,

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nor fall below 1.5% catalyst for proper cure.

A typical patch will be ready to re-coat or sand in approximately 1 to 2 hours under ideal conditions. Factors that will affect this time include: age of materials; gel and cure of the tooling gel coat used; temperature of air, part, and material; humidity; air movement; and catalyst, both amount and type.

Do not make patches when temperature conditions are below 70°F, as curing and sprayability may be adversely affected.

Precautions

Always shake or mix this product before using. This assures a uniform mixture that will perform consistently, from the first patch to last.

Secure the lid after each use. An open container will lose styrene and pick up contaminations.

Catalyzed masses become very hot as they cure. CCP recommends that excess catalyzed patching materials be placed in a bucket of water.

Using a heat source (such as a heat gun or infrared lights) to speed cure takes special care:

1. Use the heat source only where it will not be a fire hazard. Electrical appliances are an ignition source around flammable materials (including products that contain acetone and styrene).
2. The spray patch must be gelled and partially cured before heat is applied; wait approximately 15 to 30 minutes. Un-gelled patches are a fire hazard. In addition, the heat source will start to gel and cure from surface down. This can produce unacceptable results.
3. Heat will speed up cure, but it must be done properly for best results. The patch needs to be heated slowly and evenly.
 - A. If heated too rapidly, only the surface will be cured. This can result in unacceptable patches
 - B. If the temperature is too high, the color of the patch may be unacceptable. Generally, surface temperature should be slightly warm to the touch. This is about 120°F, which is adequate to speed the cure.
4. Use of heat can cause post cure, then additional surface distortion and fiber pattern near the patched area.

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

Storage

Uncatalyzed, 965CJ036 has a usage life of 90 days from the date of shipment when stored at 73°F or below in closed, factory-sealed, opaque containers and out of direct sunlight. The usage life is cut in half for every 20°F over 73°F.

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Seller warrants that: (i) Buyer shall obtain good title to the product sold hereunder, (ii) at Shipment such product shall conform to Seller's specifications; and (iii) the sale or use of such product will not infringe the claims of any U.S. patent covering the product itself, but Seller does not warrant against infringement which might arise by the use of said product in any combination with other products or arising in the operation of any process. **SELLER MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, EVEN IF THAT PURPOSE IS KNOWN TO SELLER. ANY APPLICATION INFORMATION OR ASSISTANCE WHICH SELLER MAY FURNISH TO BUYER IS GRATUITOUS AND SHALL IN NO WAY BE DEEMED PART OF THE SALE OF PRODUCT HEREUNDER OR A WARRANTY OF THE RESULTS OBTAINED THROUGH THE USE OF SUCH PRODUCT.**

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COMPOSITES SAFETY INFORMATION (October 2011)

All sales of products manufactured by CCP Composites US (CCP), and described herein, are made solely on condition that CCP's customers comply with applicable health and safety laws, regulations and orders relating to the 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 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 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 ingest or breathe vapor, spray mists or dusts caused by applying, sanding, grinding and sawing products. Wear an appropriate NIOSH/MSHA approved and properly fitted respirator during application and use of these products until vapors, mists and dusts are exhausted, unless air monitoring demonstrates vapors, mists and dusts are below applicable exposure limits. Follow respirator manufacturer's directions for respirator use.

The International Agency for Research on Cancer (IARC) reclassified styrene as Group 2B, "possibly carcinogenic to humans." This revised classification was 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 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 Transportation as a flammable liquid. Flammable products should be kept away from heat, sparks, and flame. Lighting and other electrical systems in the work place should be vapor-proof and protected from breakage.

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

Some 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 number) before using. If unavailable, these can be obtained, free of charge, from your CCP representative or from: CCP Composites US, P.O. Box 419389, Kansas City, MO 64141-6389; 816-391-6053.

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 vapors or spray mist, remove to fresh air. If swallowed, get medical attention.

Those 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 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.

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