PRODUCT BULLETIN

October 2021

POLYCOR® 970C416

10% TBC Inhibitor Solution

DESCRIPTION

POLYCOR® 970C416 is an inhibitor solution containing 10% by weight 4-tert-Butylcatechol in solvent. POLYCOR® 970C416 is used to extend the gel time of pre-promoted unsaturated polyester gel coats or resins. It is specifically formulated for use with gel coats and resins used in room temperature cure processes including open mold processes such as hand lay-up or spray-up lamination, closed molding processes such as resin transfer molding (RTM), light RTM or infusion and casting processes such as cultured marble, onyx or solid surface manufacture.

POLYCOR® 970C416 should only be used by industrial or experienced users of polyester products. Polynt does not advise, nor recommend, the use of POLYCOR® 970C416 by manufacturers without the advice of a Polynt representative.

BENEFITS & FEATURES

- Improves working time
- Can be used with many types of applications
- Room temperature cure

PROPERTIES – LIQUID

Test	970C416
Color	Clear Amber
NVM	10%
Weight per Gallon	7.61 lbs
Flash Point	88°F (31°C)

1) All properties at 25°C/77°F unless otherwise noted

APPLICATION

Polynt recommends that gel time adjustments, if necessary, be made through selection of an alternate gel coat or resin product or through changes in catalyst level and or type. Please contact Polynt for product recommendations or review your product's technical data sheet for catalyst recommendations. However, in some cases, changing products or adjusting the catalyst is not possible or practical. In those cases, use POLYCOR® 970C416 to extend gel time as follows.

Note: These recommendations apply to room temperature cure, unsaturated polyester resins and gel coats. For other materials please contact a Polynt representative for recommendations.

PROPERTIES – GEL TIME EXTENSIONS

Approximate gel time extensions based on addition of 0.010% by weight of POLYCOR® 970C416 for each minute of gel time extension desired.

Product Type	Initial Gel Time	POLYCOR® 970C416 Addition	Approximate Gel Time Extension
Gel Coat	All	0.01% by weight	1 minute
Resin	5 – 15 minutes		1 minute
	15 – 25 minutes		2 minutes
	25 – 40 minutes		2.5 minutes

1) **Note:** The recommendations provided below are provided as a reference guide only. Their accuracy will depend on a number of factors, including the product type, initial gel time, age, temperature, catalyst type, catalyst level and ambient humidity. When used in applications with fiberglass reinforcement, the cure rate also depends on reinforcement content and laminate thickness as well as other factors. For these reasons, we recommend that customers check the cure rate in their plant.

For color sensitive products such as clear or pigmented gel coats, casting resins or other low color resins, do not add more than 0.10% by weight POLYCOR® 970C416. Over adjustment with POLYCOR® 970C416 may affect color. For gel coats, film cure could also be affected. Please contact your Polynt representative for alternate recommendations.

To add POLYCOR® 970C416 to the gel coat or resin start the mixing equipment. Use mixing equipment with sufficient horsepower (relative to container size) to achieve thorough circulation from top to bottom and out to the sides of the container. The agitator must be properly sized for the container and must allow for uniform mixing regardless of the liquid level in the container. Add the POLYCOR® 970C416 to the vortex created by the mixer. Mix until thoroughly incorporated—10 minutes is typically sufficient. Air bubbling should not be used for mixing. It is not effective and only serves as a potential source of water or oil contamination. Do not overmix. Overmixing can break down the resin viscosity of thixotropic materials increasing the tendency to sag.

After adding POLYCOR® 970C416 wait a minimum of 30 minutes then check the gel time.

Note: Gel times may continue to lengthen with time (overnight or after several days). Recheck gel times before application.

Note: Gel times may continue to lengthen with time (overnight or after several days). Recheck gel times before application.

Refer to Polynt's Composites Applications Guide ("Cookbook") for equipment and application recommendations. Each user must determine the suitability of this product to his/her particular mode of operation and intended end-use application. A Polynt representative will be available to assist in the proper selection of all Polynt-Reichhold products available for commercial use.

SHELF LIFE & STORAGE

The shelf life of POLYCOR® 970C416 is 1 year from the date of manufacture from Polynt. To maximize usage life and maintain optimum properties, resins and gel coats should be stored in the original closed container at temperatures below 23°C/73°F and away from ignition sources and sunlight. Keep containers sealed to prevent moisture pick-up and monomer loss.

SAFETY & WARRANTY

To receive a copy of our safety and warranty information, please email safetyandwarranty@polynt.com.