

SP-1045/SP-1045P

Description

SP-1045 is a heat-reactive octylphenol-formaldehyde resin that contains methylol groups.

General Product Data

Product Specifications:

Ball and Ring Softening Point, (°C)	80 - 95
Methylol Content, (%)	8.0 – 11.0
Melt Point, Capillary, (°F)	140-150
Color, Hellige	1-6

Test Methods available upon request

Typical Properties:

Specific Gravity	1.04
Physical Form	
SP-1045	Flake
SP-1045P	Pastille

Solubility:

SP-1045 is soluble in aromatic, aliphatic, ketones and higher alcohols and naphthas.

Application

SP-1045 was specifically designed for the cure of Isobutylene-Isoprene (Butyl) rubber by the resin cure system*. SP-1045, used in combination with halogen and zinc donors, yields butyl vulcanizates with outstanding resistance to high heat and compression set. In addition, these vulcanizates are non-blooming, non-staining and have high modulus values. Resin cured butyl rubber, because of its versatility and inherent ozone resistance, has been employed in many areas including tire curing bladders, conveyor belts, gaskets, and heat-resistant packing compounds. The octyl group also makes SP-1045 compatible with other elastomers, and can be used to make cements offering a wide range of properties. In addition, the reactive methylol groups

can be used as functional sites for a variety of reactions such as with rosin for the printing ink market.

Formula For Curing Butyl Rubber

Following is a rudimentary test formulation which demonstrates the cure of butyl rubber by the resin cure system. The resin should be added on a 2-roll mill or in the last pass through a mixer to prevent premature cure.

Exxon™ Butyl 268 ¹	95 parts
Polychloroprene W	5 parts
HAF Carbon Black	50 parts
Zinc Oxide	5 parts
Castor Oil	5 parts
SP-1045 Resin	10 parts

Storage And Shelf Life

SP-1045 should be stored where temperatures do not exceed 86 °F (30 °C) for long periods of time. For best results, it is recommended that this product be used within 1 year of manufacture date. As with all phenolic resins, SP-1045 will become darker with age. Pallets should never be stored double stacked.

Note: Resins of this type are known to agglomerate or sinter during storage. This condition does not affect the performance of the resin in its normal application and is not considered justification for rejection or return.

Packaging

SP-1045 is packaged in paper bags at 25 kilograms net weight, stretch-wrapped on pallets.

Safety And Regulatory Information

For a current Safety Data Sheet (SDS) or other regulatory information, contact SI Group, Inc. at productinfo@siigroup.com.

*United States Patent No. 2,701,895 and others to Uniroyal, Inc.

1 Registered trademark of ExxonMobil Corp.