



Neoprene NPR2008

TECHNICAL INFORMATION – March 2017

A high viscosity Denka™ Neoprene polymer designed specifically to provide improved solution characteristics when compared to Neoprene WHV which is intended primarily for rubber goods. Raw polymer stability is excellent. Excessive time and temperature of storage can cause a change in color and viscosity.

Physical Form	Chips
Color	White to silvery grey
Specific Gravity at 25/4°C, ASTM D7920-66 (1979)	1.23
Solution viscosity, mPa's (Brookfield viscometer, Model LVT with UL adaptor, speed 6 rpm or 3 rpm depending on viscosity; 5% by weight raw polymer in toluene; measured at 25°C.	52 – 85
Crystallization Rate	Rapid
Solubility	Soluble in aromatic hydrocarbons and mixtures with esters, ketones, aliphatic hydrocarbons, and selected chlorinated solvents.
Storage Stability	Excellent. Storage at temperatures below 21°C will retard darkening of color and gradual increase in viscosity.

* These data are presented to describe Neoprene NPR2008 and are not intended to serve as specifications.

Solubility and Solution Properties

The solubility characteristics (solubility parameter, hydrogen bonding strength, etc) of Neoprene NPR2008 synthetic rubber are similar to those of Neoprene WHV and AD. Solvent system used is conventional adhesives containing Neoprene WHV are satisfactory for Neoprene NPR2008. However, Neoprene NPR200-8 is designed to provide improved solution characteristics in adhesives systems as compared to Neoprene WHV. It is carefully controlled in manufacture and its sales specifications include solution viscosity limits, which defines its performance accurately for the adhesives industry. Therefore, the adhesives manufacturer can rely on minimum variability in solution viscosity or solids content of adhesives system prepared using the polymer directly as supplied by Denka. The specification limits on solution viscosity for Neoprene NPR2008 were chosen to match the solution viscosity characteristics of Neoprene WHV, so that direct substitution is possible in most adhesive systems.

Handling Precautions

Neoprene NPR2008 has no known health hazards. However, it should be handled in accordance with good industrial hygiene practices. For additional information, read Denka Performance Elastomer LLC reference "Guide for Safety and Handling and FDA Status of Neoprene Solid Polymers", and observed the precautions noted therein.

The information about health hazards and handling precautions for solvents and chemicals used with Neoprene NPR2008 to prepare adhesives, consult the suppliers of these materials. Read and heed the product labels. The adhesives grades of Neoprene can accumulate a static charge during shipping, unloading, conveying, or pouring from the bag. To avoid hazards associated with a static electric discharge, provide adequate grounding of equipment and personnel while handling Neoprene NPR2008 in the vicinity of flammable vapors or dusts. See National Fire Protection Association (NFPA) RP77 "Recommended Practice on Static Electric."

Information on European Union Dangerous Preparations Directive 1999/45/EC related to Colophony Skin Sensitizer

Colophony is classified as a skin contact sensitizer under European Union Dangerous Preparations Directive 1999/45/EC effective July 30, 2002. This Directive requires labeling of products that contain colophony at levels equal to or greater than 0.1% (refer to the Directives for specific details). Solid (dry type) Neoprene adhesives grade products manufactured by Denka Performance Elastomer LLC contain about 4% colophony (CAS No. 8050-09-7). Toxicological tests have demonstrated that dry Neoprene is not a skin sensitizer. Because of this testing, dry Neoprene polymer is not subject to mandatory labeling under the above Directive despite the presence of the colophony. However, when these Neoprene adhesive grade products are dissolved in organic solvents, the colophony may still be present at concentrations up to 0.8% depending on the solids content of the solutions. In the absence of data showing the adhesive is not a skin sensitizer, the adhesive could be subject to the above EU regulation.

We recommend that manufactures and marketers of adhesive solutions based on Denka Performance Elastomers' Neoprene (dry type) adhesive grade products determine whether the colophony level is above 0.1%. If the manufactured preparation has a colophony content of less than 0.1% it will not be subject to mandatory labeling (provided no other constituents necessitate mandatory labeling). Manufactured preparations that contain higher colophony contents will require the labeling and/or container notices described in the Directive.

Contact Denka at the following location:

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The information set forth herein is furnished free of charge and is based on technical data that Denka Performance Elastomer believes to be reliable. It is intended for use by persons having technical skill, at their own discretion and risk. The handling precaution information contained herein is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards. Because conditions of product use and disposal are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. As with any material, evaluation of any compound under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate or a recommendation to infringe on any patents.

Caution: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, discuss with your Denka Performance Elastomer customer service representative.

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