



Neoprene TW and TW-100

TECHNICAL INFORMATION – November 2015

Non-staining general-purpose polychloroprene that contain gel for good processability. The two grades differ only in Mooney viscosity.

Typical Polymer Properties	
Physical Form	Chips
Color	White to silvery grey
Specific Gravity at 25/4°C, ASTM D7920-66 (1979)	1.23
Mooney Viscosity, ML 1+4 at 212 °F [100 °C]	
TW	42 - 52
TW-100	82 - 99
Crystallization Rate	Fast
Storage Stability	Excellent. Little or no change in viscosity or scorch characteristics during storage, especially if stored under cool, dry conditions.

* These data are presented to describe Neoprene TW and Neoprene TW-100, and are not intended to serve as specifications.

Processing and Performance Features

- **Good Processing Characteristics**

Neoprene TW and TW-100 do not decrease in molecular weight during mixing and processing, and cannot be chemically peptized. However, some reduction in viscosity may occur under high shear conditions. The degree of softening is greater for a higher weight polymer such as TW-100.

Compounds of Neoprene TW and TW-100 mix faster and cooler and have better mill release than do compounds of Neoprene GNA or GRT.

Neoprene TW is an excellent polymer base for extruded products, providing high extrusion speed, low die swell, excellent definition and very good collapse resistance. In calendered goods, it produces smooth sheeting with low nerve and shrinkage. Neoprene TW-100 offer these same benefits in a higher viscosity range suitable for more heavily-loaded compounds.

- **Broad Compounding Latitude**

The availability of two viscosity grades makes it possible to accommodate considerable variation in filler and plasticizers loading while still maintaining workable compound viscosity. Since cure accelerators must be used with these types to achieve practical cure rates, processing safety and cure rate can be varied to suit processing requirements.

- **Vulcanizate Properties Similar to W Types**

Even though Neoprene TW and TW-100 contain gel polymer, the mechanical properties of their vulcanizates are not greatly different from those vulcanizates of the W types. They also provide the good resistance to heat aging and compression set that is characteristic of the W types.

Handling Precautions

Neoprene TW and TW-100 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 compounding ingredients used with Neoprene TW and TW-100 to prepare finished products may present health hazards in handling and use. Before proceeding with any compounding work, consult and follow label directions and handling precautions from supplies of all ingredients. Read and heed the product labels.

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 TW and TW-100 in the vicinity of flammable vapors or dusts. See National Fire Protection Association (NFPA) RP77 “Recommended Practice on Static Electric.”

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