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RESINS & TACKIFIERS
-PHENOLIC-

FRJ-551 RESIN
(formerly P-126)

-HEAT REACTIVE PHENOLIC RESIN-

PRODUCT DESCRIPTION:

FRJ-551 is a heat reactive, alkyl phenolic resin formulated for use in Polychloroprene based contact adhesives. It imparts low initial viscosity and excellent viscosity-stability to adhesives of this type. FRJ-551 can also be used with the adhesive grades of chloroprene where good bond strength, both at room and elevated temperatures, are the result.

TYPICAL PROPERTIES:

Physical Form	Flake
Melting Point, Capillary (°F).....	170 – 195
Specific Gravity	1.03
Color, Gardner, 60% in Toluene.....	0 – 8
Methylol Content (%).....	12 - 16

SOLUBILITY:

FRJ-551 is soluble in aromatic and aliphatic hydrocarbons, esters, ketones, and partially soluble in higher alcohols.

APPLICATION:

The primary function of FRJ-551 in polychloroprene contact adhesives is to impart low initial viscosity and maintain viscosity stability. Adhesives of this type depend on an interaction of the elastomer and metal oxides for the development of their high cohesive strength at room and elevated temperatures. In adhesives based on polychloroprene, FRJ-551 gives good bond strength, both at room and elevated temperatures.

STORAGE:

For best results, FRJ-551 should be stored where temperatures do not exceed 86°F for extended periods of time. As with all phenolic resins, FRJ-551 will become darker with age.

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FORMULATING:

Adhesives based on Neoprene AF** depend on an interaction between the elastomer and metal oxides for the development of their high cohesive strength at room and elevated temperatures. The primary function of the resin component is to give low initial viscosity and maintain viscosity-stability. A typical formulation is as follows:

<u>Part A</u>		<u>Part B</u>	
Neoprene AF	100.0	FRJ-551 Resin	45.0
Antioxidant	1.0	Water	1.0
Magnesium Oxide	8.0	Solvent	480.0
Zinc Oxide	5.0		

** A solvent system of 1/3 each by weight toluene, MEK, and Hexane gave low initial viscosity and good stability.

Warm mill rolls to 50°C and add Part A, adding AF, ELASTOMAG, Zinc Oxide, and Antioxidant in that order. Dissolve resin in part B in solvent and water. After resin is completely in solution, combine Part A with Part B and mix until smooth and homogeneous.

* Product of E.I. DuPont de Nemours Company.