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RESINS & TACKIFIERS
-PHENOLIC-

P-104 RESIN

PRODUCT DESCRIPTION:

P-104 is an oil-soluble, thermoplastic, terpene phenolic resin having a wide compatibility range. The largest application of P-104 Resin is in adhesives.

CHARACTERISTICS:

P-104 Resin can be milled directly into rubber compounds or dissolved by mild agitation.

TYPICAL PROPERTIES:

Form.....	Flake
Melting Point (Ball and Ring, ASTM E-28)°C.....	115
Color (Gardner-Hellige) 50% Non-Volatiles in toluene.....	10
Specific Gravity (at 25°C)	1.00

SOLUBILITY:

Soluble in all the common aromatic and aliphatic hydrocarbons, alcohols, ketones, and esters.

ADVANTAGES:

P-104 Resin has extremely good shelf life and can be stored indefinitely in closed containers at room temperatures. The non-yellowing characteristic of this resin in adhesive films is also of distinct advantage.

APPLICATIONS:

P-104 Resin is used to increase the tack retention of both Neoprene and SBR adhesives. In the case of Neoprene adhesives, the use of excessive amounts of this resin will cause a considerable reduction in the cohesive strength of the adhesive film. However, it should be noted that P-104 Resin will function as an effective tackifier for Neoprene cements even in the presence of magnesium oxide where it will not react to form a non-tacky product.

SUGGESTED FORMULATION - PRESSURE-SENSITIVE MASTIC:

PART A

<u>Material</u>	<u>Parts (by weight)</u>
Neoprene WRT*	100.0
Zinc Oxide.....	5.0
Magnesium Oxide.....	4.0
Zalba*.....	2.0
Organic Solvent.....	333.0

Compound base on mill, then disperse in solvent with heavy duty mixer.

PART B

Dissolve 50 parts (by weight) of P-104 Resin to 25 percent solids in solvent.

PART C

Combine Parts A and B by stirring and apply to backing.

On paper backing, this mastic produces excellent resistance to oil and heat aging when compared to standard pressure-sensitive mastics based on natural rubber. Peel adhesive strengths are in the range of 4 pounds per linear inch.

* Products of E.I. du Pont de Nemours & Company, Inc. Wilmington, DE