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RUBBER CHEMICALS
-ANTIOZONANTS-

ANTIOZONANT PD-2
(N-(1,3-dimethyl butyl) N'-phenyl-p-phenylene diamine)

DESCRIPTION:

Antiozonant PD-2 is a staining/discoloring antiozonant and antioxidant in rubber goods (including natural, SBR, NBR, and PBD). It provides excellent protection against ozone, heat, oxidation, flex-cracking and metal ion (copper/manganese) poisoning. Its use is restricted to dark colored articles where migratory staining can be tolerated.

Antiozonant PD-2 has a low melt point allowing excellent dispersion characteristics. It can have an activating effect on sulfur cures, especially in polychloroprenes (Polychloroprenes normally use MPD-100 for ozone protection unless one of the above high diene polymers is present. In this case, small amounts of PD-2 help protect the second polymer). PD-2 is not recommended with peroxide cures.

Typical dosages of PD-2 are 1 to 2 phr. Up to 4 phr (or in combination with antioxidants like PANA, or Antioxidant 58) may be used in severe dynamic applications. A petroleum wax (paraffin/microcrystalline blend) is recommended to aid static ozone resistance and help bring PD-2 to the rubber surface.

TYPICAL PROPERTIES:

- Appearance. brown to violet-brown pellets
- Melting Point 45°C (113°F) minimum
- Active Substance Content 97% min.
- Specific Gravity. 1.02

Antiozonant PD-2 is solubility in benzene, carbon tetrachloride, ethyl acetate, methylene chloride, acetone, ethanol, and aliphatic hydrocarbons, but insoluble in water.

The storage stability of PD-2 is approximately two years when stored under cool (77°F), dry conditions in closed containers. Extended periods of storage at higher temperatures (>95°F) can cause the material to fuse into a solid mass. The new pelleted PD-2 will reduce this problem.

jh 1298, t-azo pd2

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