



**RUBBER CHEMICALS**  
**-ANTIOXIDANTS-**  
**STAINING**

3770 Embassy Parkway, Akron, Ohio 44333  
330-535-2100 ♦ 800-321-2260 ♦ Fax 330-535-8947

**ANTIOXIDANT DQ**

(2,2,4-trimethyl-1,2-dihydroquinoline...aka: TMQ)

**DESCRIPTION:**

Antioxidant DQ is polymerized 2,2,4-trimethyl-1,2-dihydroquinoline. It finds use in many elastomers as it provides very good heat and oxidative aging properties on a cost effective basis. Antioxidant DQ is a copper and manganese inhibitor. Not recommended for polychloroprene due to decreased bin stability.

**TYPICAL PROPERTIES:**

- Appearance.....yellow to amber color (powder and pellet)
- Specific Gravity.....1.10
- Softening point.....85°C - 95°C (powder and pellets)
- Odor.....very weak, but characteristic
- Solubility.....acetone, ethyl acetate, benzene, alcohol, methylene chloride and carbon tetrachloride. Insoluble in water.
  
- Storage Stability.....excellent
- Dispersion.....excellent, easily incorporated. Pellets suggested for banbury mixing only. Use powder for mill and solvent systems.

**GENERAL RECOMMENDATIONS:**

Antioxidant DQ is extremely effective in protecting rubber products based on natural rubber, polyisoprene, SBR, EPR/EPDM, NBR and polybutadiene against oxygen and heat simultaneously. It is not suitable for polychloroprene elastomers because of its negative impact on compound shelf life. In natural rubber, it has some anti-flexcracking properties. Antioxidant DQ is non-blooming but does cause discoloration and is slightly staining. Increased amounts of DQ in polymers will decrease viscosity slightly. Increased amounts also improve scorch resistance but increase cure time. Excellent antioxidant for peroxide cures due to minimal interference with cure.

**STORAGE STABILITY:**

Akrochem Antioxidant DQ will remain stable over two years if stored in closed containers, under cool and dry conditions and out of direct sunlight.

TLM 6-22-2018  
T-AO DQ (3755) (3613) (3625) (3735)

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