



GENNOX 1010 Phenolic Primary Antioxidant

Characterization GENNOX 1010 –a sterically hindered phenolic antioxidant –is a highly effective, non discoloring stabilizer for organic substrates such as plastics, synthetic fibers, elastomers, adhesives, waxes, oils and fats. It protects these substrates against thermo-oxidative degradation.

Chemical Name Pentaerythritol Tetakis(3-(3, 5-di tert-butyl-4-hydroxyphenyl)propionate)
CAS Number 6683-19-8
Structure GENNOX 1010
Molecular weight 1178

Applications GENNOX 1010 can be applied in polyolefins, such as polyethylene, polypropylene, polybutene and olefin copolymers such as ethylene-vinylacetate copolymers. Also, its use is recommended in other polymers such as polyacetals, polyamides and polyurethanes, polyesters, PVC, styrene homo-and copolymers, ABC, elastomers such as butyl rubber (IIR), SBS, SEBS, EPM and EPDM as well as other synthetic rubbers, adhesives, natural and synthetic tackifier, resins, and other organic substrates.

Features / Benefits GENNOX 1010 has good compatibility, high resistance to extraction and low volatility. It is odorless and tasteless. The product can be used in combination with other additives such as costabilizers (e. g thioethers, phosphates, phosphonites), light stabilizers and other functional stabilizers. The effectiveness of the blends of GENNOX 1010 with Gencure 168 (GENNOX B-blends) or with Gencure 168 and HP-136 (GENNOX HP products) is particularly noteworthy.

Product Forms	Code:	Appearance:
	Powder	white, free-flowing powder
	FF(C)	white, free-flowing granules
	DD	white to slightly green pellets

Guidelines for use Already 500 ppm-1000 ppm of GENNOX 1010 provide long-term thermal stability to the polymer. Concentrations up to several percent may be used depending on the substrate and the requirements of the end application. In polyolefins the concentration levels for GENNOX 1010 range between 0.05% and 0.4% depending on substrate, processing conditions and long-term thermal stability requirements. The optimum level has to be

determined application specific.

Concentration levels of GENNOX 1010 in hot melt adhesives range from 0.2% to 1%, in synthetic tackifier resins, GENNOX 1010 concentration ranges between 0.1% and 0.5%, Extensive performance data of GENNOX 1010 in various organic polymers and applications are available upon request.

Physical properties

Melting Range (° C)	110-125
Flashpoint (° C)	279
Specific Gravity (20° C)	1.15 g/cm ³
Bulk density	powder: 530-630 g/l FF(C): 480-570 g/l DD: 450-550 g
Solubility(20° C)	g/100g solution
Acetone	47
Chloroform	71
Ethanol	1.5
Ethylacetate	47
n-Hexane	0.3
Methanol	0.9
Methylene Chloride	63
Toluene	60
Water	<0.01

Handling Safety

In accordance with good industrial practice, handle with care and prevent contamination of the environment. Avoid dust formation and ignition sources. For more detailed information please refer to the materials safety data sheet.

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