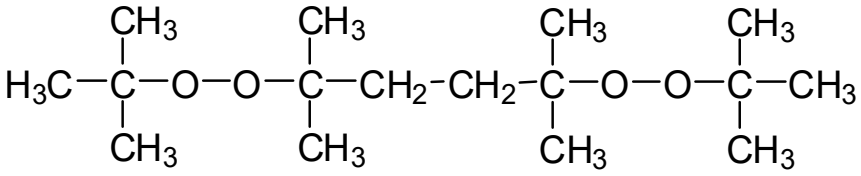
Technical Data Sheet

DHBP-80-WO

2,5-Dimethyl-2,5-di (tert .butylperoxy) hexane
CAS#78-63-7
Liquid, 80 % solution in white mineral oil
Molar mass: 290.4 g/mol

Structural Formula



Description

Colourless, mobile liquid, consisting of 80 % 2 .5-Dimethyl 2 .5-di(tert .butyl peroxy) hexane in white mineral oil. This bifunctional dialkyl peroxide is used as an initiator (radical source) in the crosslinking of polymers, and the rheology control of polypropylene.

Technical Data

Appearance	colourless liquid
Purity (GC)	approx. 80 % w/w
Active oxygen (calculated)	approx. 8.9 % w/w
De-sensitising agent	White mineral oil
Density at 20 °C	approx. 0.87 g/cm^3
Viscosity at 20 °C	approx. 11.4 mPa.s
Refractive index at 20 °C	approx. 1.430
Colour index (Hazen)	approx. 50
Miscibility	not miscible with water, miscible with alcohols, esters
Critical temperature (SADT)	> 80°C
Cold storage stability	freezing point below 0 °C
Recommended storage temperature	max. 40°C
Storage stability as from date of delivery	12 months

This product is in compliance with the ElektroG (E U-Directives: RoHS 2002/95/EG, WEEE 2002/96/EG)

Half-life-time

10 h/1 h/1 min (0.1 m/benzene): 120/142/190 °C

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Application

CR-POLYPROPYLEN:
A radical source to control the rheology of polypropylene.
Temperature range: 200-220°C
Usage level: 0 .01-0 .1% w/w of product as supplied, based on polymer .
This degradation, e .g .in an extruder, lowers the molecular weight mean and permits easier (re)processing of the polypropylene .The melt-flow index of the controlled rheology material increases with the peroxide level. (Table 1)
Stabilizers, such as phenolic antioxidants and UV-additives can react as radical scavenger and reduce efficiency of the degradation process. (Table 2.)

Further information on organic peroxides for polymerisation can be found in our technical brochures on this subject.

„Vis-breaking"-Efficiency

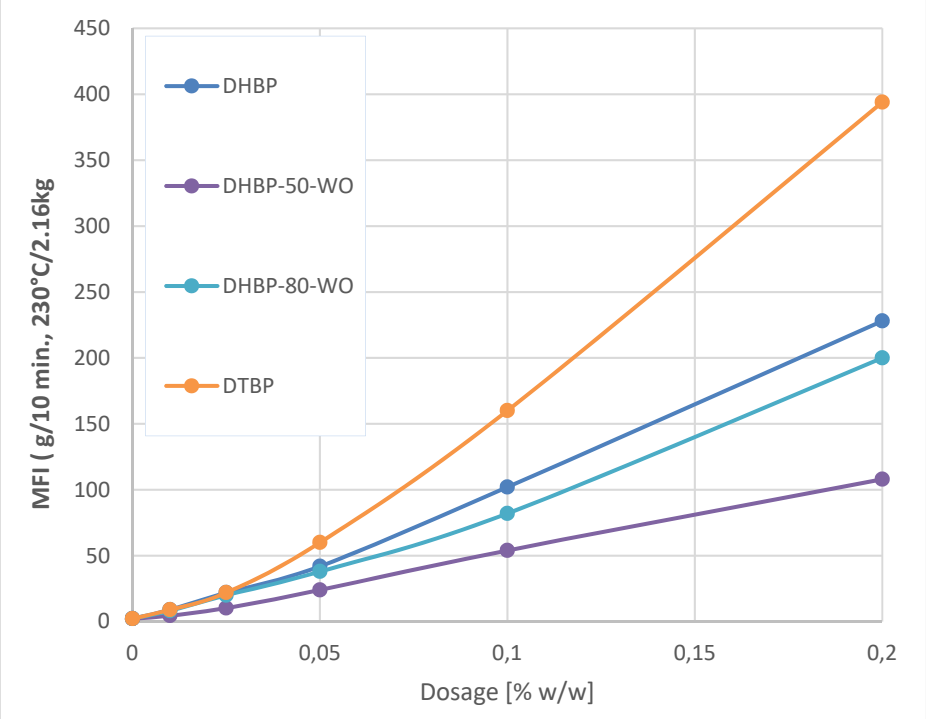

Table 1: Influence of Peroxide dosage
Degradation of an unstabilized standard Polypropylene homopolymer (MFI 2g/10min at 230°C/2.16kg) in a single screw extrusion line at 230°C (40 rpm)

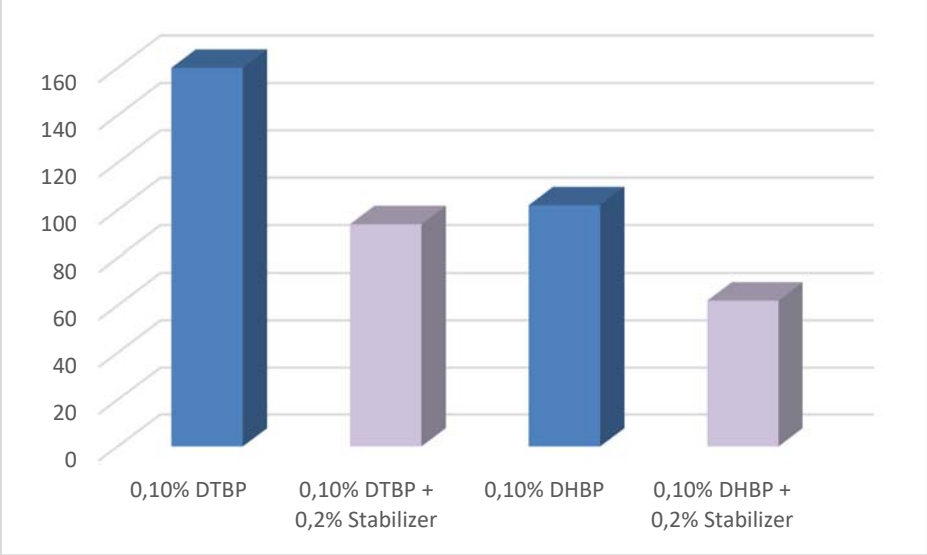

Table 2: Influence of stabilizer package (UV / Antioxidant – combination)
Polypropylene homopolymer (MFI 2g/10min at 230°C/2.16kg)
Trials in a single screw extrusion line at 230°C (40 rpm)

Standard Packaging

25 kg in HDPE canister

Disclaimer

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