

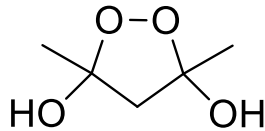
Technical Data Sheet (TDS)

NOROX®PD-40
Thermoset (TS)

NOROX®PD-40

Acetylacetone peroxide
CAS#13784-51-5
Colourless liquid

Structural Formula



Description

Colorless liquid consisting of acetylacetone peroxides phlegmatized with diacetone alcohol. This ketone peroxide is suitable as a radical initiator for curing unsaturated polyester resins.

Main application: Curing of thin-walled molded parts at ambient temperature in combination with a cobalt accelerator.

Technical Data

Appearance	colourless liquid
Desensitising agent	glycols, diacetone alcohol
Active oxygen (AO)	ca. 4.1 % w/w
Density at 20 °C	ca. 1.1 g/cm ³
Viscosity at 20 °C	ca. 37 mPa·s
Miscibility	miscible with alcohols, phthalates
Critical temperature (SADT)	ca. 60 °C
Cold storage stability	can crystallize below 10 °C
Recommended storage temperature	10 °C to 25 °C ●
Storage stability as from date of delivery	6 months

Standard Packaging

5 kg and 25 kg in HDPE canisters

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Application

CURING OF UNSATURATED POLYESTER RESINS:

Curing agent for UP resins (e.g. *ortho*- and *iso*-phthalic acid resins) at ambient temperature in combination with cobalt accelerators. The "storage time" (gel time of resin + peroxide) is usually only a few hours and depends on temperature and resin type. The "pot life" (gel time of resin + peroxide + accelerator) is relatively short, but can be extended by adding an inhibitor (e.g. Inhibitor TC 510).

CURING CHARACTERISTICS:

This initiator introduces a strong evolution of heat into the curing system. This results in short demoulding times and a very good demoulding factor. Even at temperatures below 20 °C, curing is still relatively quick, especially in combination with Accelerator CA 12 X. Some fillers, color pigments or stabilizers can interfere the curing or prevent it entirely.
NOROX®PD-40 is not suitable for vinyl ester resins.

PROCESSING METHODS:

The product can be used for curing of thin-wall moulded parts using various processes such as hand lay-up, spray lay-up, vacuum and injection moulding (RTM), wet press moulding, centrifugal casting (pipes) and continuous impregnating (corrugated sheets).

Decomposition Products

Possible detectable decomposition products: acetylacetone, carbon dioxide, aliphatic acids

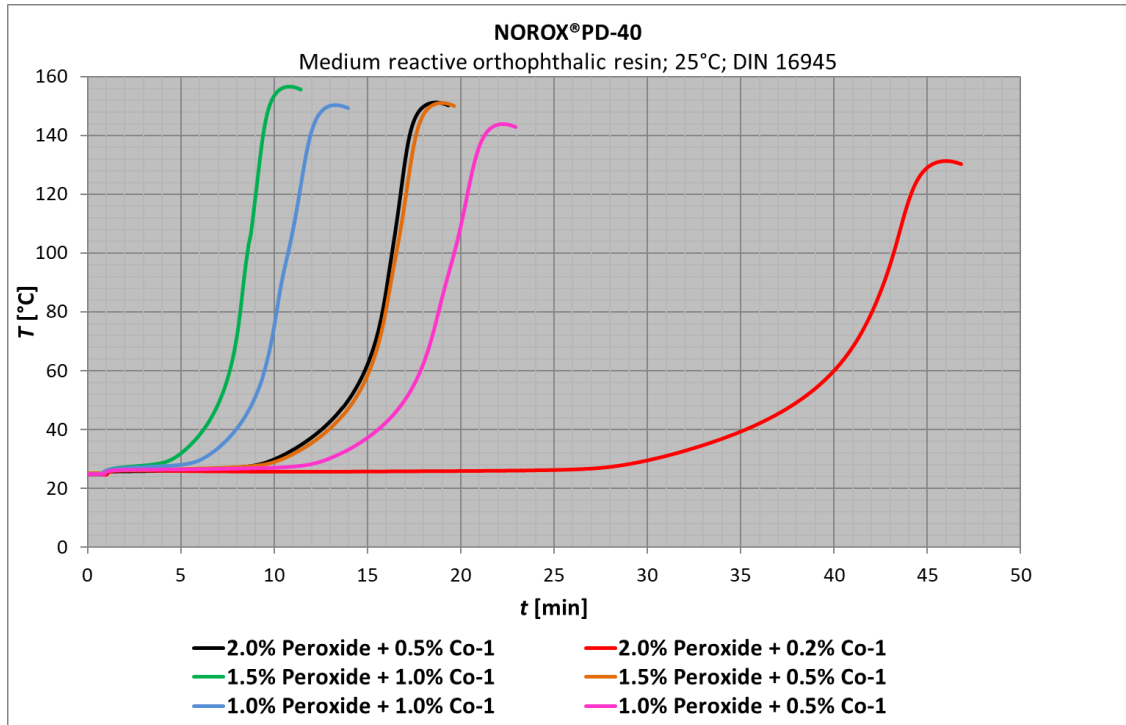
Storage

Avoid any source of heat, light, humidity and protect the product from impurities. Keep within safe temperature limits.

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Measurements



Formulation (parts per weight)

Resin		100	100	100	100	100	100
NOROX®PD-40	[Vol-%]	2.0	2.0	1.5	1.5	1.0	1.0
Co-1	[Vol-%]	0.5	0.2	1.0	0.5	1.0	0.5
Curing data							
Gel time 25 - 30 °C t_{gel}	[min]	10.1	30.3	4.6	10.5	6.2	12.9
Gel time 25 - 35 °C t_{gel}	[min]	11.5	33.1	5.6	11.9	7.2	14.4
Curing time t_{max}	[min]	18.7	46.0	10.8	18.9	13.3	22.2
Peak temperature T_{max}	[°C]	151	131	157	151	150	144

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