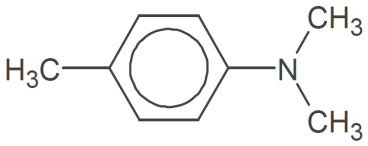
# PERGAQUICK A100

## Amine accelerators / Curing

**Description**

N,N-Dimethyl-p-toluidine
98.5%, Liquid

PERGAQUICK A100 is used as an accelerator for curing of unsaturated polyester and PMMA resins at ambient temperature in combination with Dibenzoyl peroxide (PEROXAN BP-types).




| | |
|---|---|
| CAS No.: | **99-97-8** |

**Technical data**

| | |
|---|---|
| Appearance: | **light yellow, clear liquid** |
| Active substance assay: | **min. 98.5%** |
| Density at 20°C: | **0.94 g/cm³** |

**Solubility**

Insoluble in water, soluble in various organic solvents

**Storage**

| | |
|---|---|
| Maximum storage temperature (Ts max): | **30°C** |
| Storage stability as from date of delivery: | **6 months** |

Keep packaging tightly closed in a well ventilated place at indicated storage temperature.

**Hazardous reactions**

Might react violently with organic peroxides. It is therefore not allowed to store or transport the product together with peroxides. NEVER BRING AN ACCELERATOR INTO DIRECT CONTACT WITH PEROXIDES!

**Safety characteristics**

| | |
|---|---|
| Flash point: | 98°C |

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# PERGAQUICK A100

## Amine accelerators / Curing

**Application**

The curing of unsaturated polyester resins at ambient temperatures can in general not be performed by an organic peroxide alone. The radical formation which is necessary - to start the polymerisation reaction - is too slow at ambient temperatures with most generally applied organic peroxides.

To speed up the radical formation in a controllable way, organic peroxides must therefore be used in combination with a so called accelerator. For diacyl peroxides like Dibenzoyl peroxide - the PEROXAN BP-types - aromatic tertiary amines have to be used as accelerator.

The following amines are available:
N,N-Dimethyl-p-toluidine PERGAQUICK A100 (high reactivity)
Ethoxylates of p-toluidine PERGAQUICK A150 PM (high/medium reactivity)
N,N-Dimethylaniline PERGAQUICK A200 (medium reactivity)
N,N-Diethylaniline PERGAQUICK A300 (low reactivity)

Each amine type has a different and specific influence on the decomposition of Dibenzoyl peroxide. Therefore, it is possible to adjust a wide variety of gel times and speed of cure by the proper choice of amine type and dosage level.

The cure system Dibenzoyl peroxide / amine accelerator can be characterized as being:
- not sensitive for moisture
- practically not sensitive to pigments and fillers
- applicable at low temperatures

Possible disadvantages can be:
- a limited pot life of the amine accelerator in the resin
- yellow to brown colour of the cured product
- poor UV light stability of the cured product
- a relatively high residual styrene content in the mouldings after a postcure at elevated temperature especially at high amine accelerator dosages.

A special application of the amine accelerator is their use as promotor in a ketone peroxide / cobalt accelerator cure system. For this application mainly PERGAQUICK C24 AX is used.

Depending on application area and working conditions, the following accelerator dosage levels are recommended:

PERGAQUICK A100: 0,2 to 0,5 phr

**Packaging**

**25kg container**
**190kg steel drum**

**Major decomposition products**

**In case of fire toxic fumes of N-oxides may be formed.**

**Safety and handling**

Please refer to the material safety data sheet (MSDS) for information concerning safe storage, use and handling of PERGAQUICK A100. This information should be thoroughly reviewed prior to acceptance of this product. The MSDS is available for downloading at **www.pergan.com** or through contacting Pergan directly.

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