

DMA Accelerator

TECHNICAL DATA SHEET

Typical Properties

Appearance	A clear pale yellow liquid
Assay	98.5% min.
Density, 20° C	960 kg/m ³
Boiling point	193-194° C
Melting point	> 2.0 ° C
Flashpoint	62° C (Cleveland, OC)
Auto ignition temperature	370° C
Solubility	Insoluble in water. Soluble in various organic solvents.
Aniline	0.07 % max
N-Methylaniline	0.60 % max
Strength	99.00 % min
Water	0.20 % max

Applications

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

To speed up the radical formation in a controllable way, organic peroxides must therefore be used in combination with a so-called accelerator.

In this way a cure system can be developed for unsaturated polyester resins, which is extremely fast resulting in very short demolding times of the cured product.

The cure system dibenzoyl peroxide/amine accelerator can further be characterized as being:

- Not sensitive for moisture.
- Practically not sensitive to pigments and fillers.
- Applicable at low temperatures, even at 0° C a reasonable speed of cure can be achieved.

Possible disadvantages may be:

- A limited pot life of the amine accelerator in the UP 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 temperatures, especially high amine accelerator dosages.

A special application of the amine accelerators is their use as promoter in a ketone peroxide/cobalt accelerator cure system. For this application mainly DMA accelerator or its lower concentrated version used.

Dosage

Depending on application area and working conditions the following accelerator dosage level is recommended:
DMA Accelerator
0.05 – 0.50 phr*
DMA Accelerator can be used as a very effective promoter to increase the reactivity of a ketone peroxide/cobalt accelerator cure system.

Storage & Handling

Storage conditions	Closed original containers. Ambient temperatures. Well ventilated room. Keep away from organic peroxides.
Storage stability	Only when stored under these recommended storage conditions, the product will remain within the Magnatrade Corp. specifications for a period of at least six months after delivery.
Protective equipment And handling instructions	<ul style="list-style-type: none">- Use safety goggles or face shield and gloves.- Extra ventilation recommended.- Use clean equipment and tools of inert material, such as stainless steel, polyethylene, glass.- All equipment should be earthed.- Do not pipet by mouth.- Never bring peroxide into direct contact with accelerator.

Health and safety

Hazardous reactions	Might react violently with organic peroxides. It is therefore not allowed to store transport the product together with peroxides. NEVER BRING AN ACCELERATOR INTO DIRECT CONTACT WITH PEROXIDES!
Major decomposition Products	In case of fire toxic fumes of N-oxides may be formed.
Fire fighting	Extinguish a small fire with powder or carbon dioxide; then apply water to prevent re-ignition. Extinguish a big fire with large amount of water, applied from a safe distance.
Eye contact	Rinse with plenty of water for a least 15 minutes. Seek medical advice.
Skin contact	Wash with plenty of water (and soap) or shower, afterwards apply a lanolin-based ointment. Seek medical advice.
Ingestion	Rinse mouth. Give water to drink. Seek medical advice. Do NOT induce vomiting.
Inhalation	Move to fresh air, rest, half-upright position. Loosen clothing. Seek medical advice.

Standard packaging

The **DMA Accelerator** is shipped in drums of 20 and 200 kg. Other packing is available under customer request. You can obtain samples under request.

Important Notice

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility or as an assumption of a duty on our part. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information, products or vendors referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE. Nothing herein is to be taken as permission, inducement or recommendation to practice any potential invention without a license.