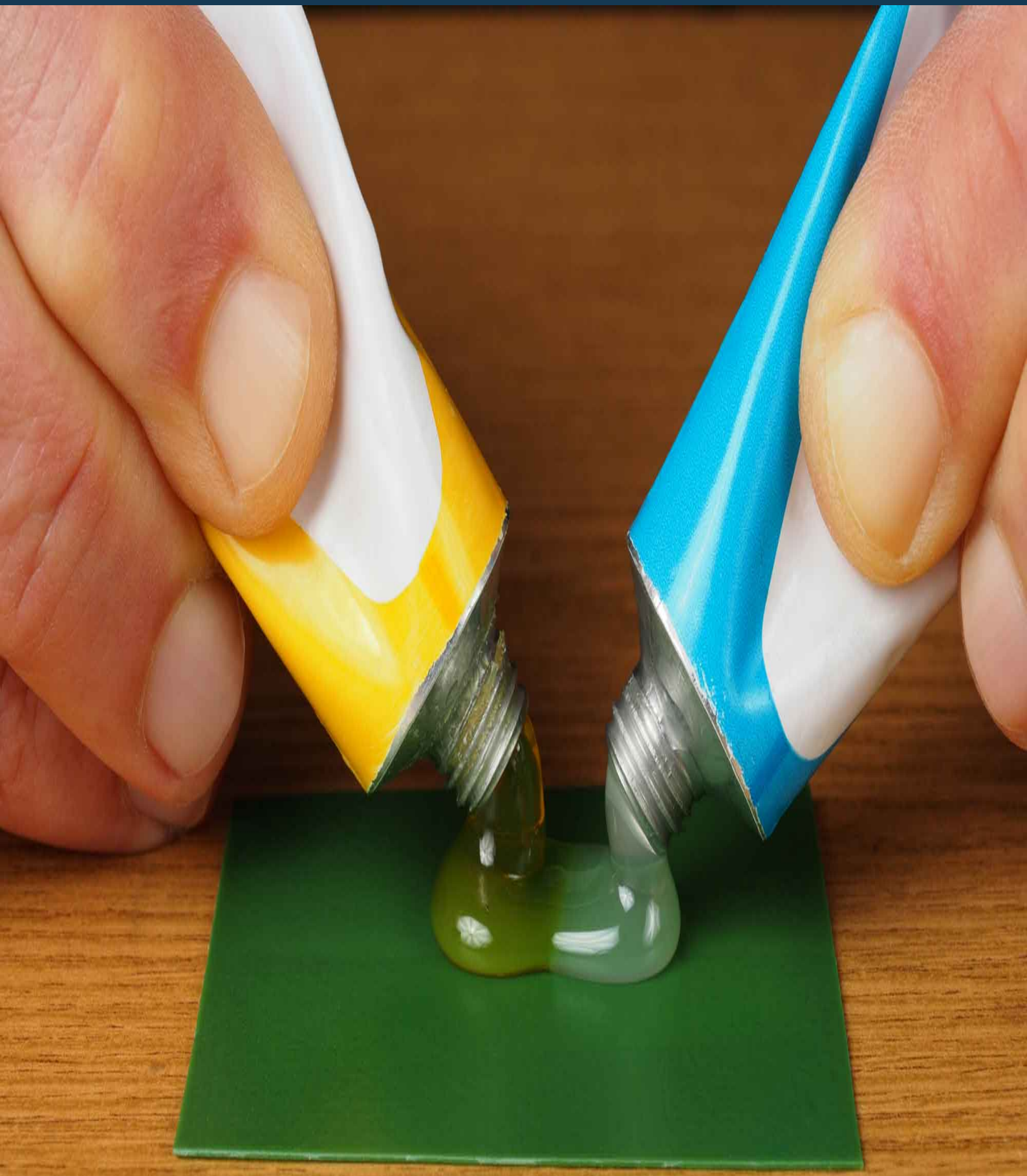
CURING AGENT-BDMA



Introduction

Benzyldimethylamine (BDMA) fuctions as a relatively slow acting tertiary amine type catalyst in most epoxy resins, which allows good pot life, low colour, and medium heat distortion temperatures and good electrical properties. In addition Benzyldemethylamine (BDMA) also acts as a curing agent (activator / catalyst) for such epoxy resins, especially for adhesives, coatings, and also for laminating, casting and filament winding. Main applications are Catalyst for different curing agents used in the production of polyurethane foams, Initiator in the production of epoxy resins, Accelerator for epoxy resins in laminates for electrical equipment, Sensitizer for the photopolymerization of methacrylates, Catalyst for the UV-curing of styrene polyester products.

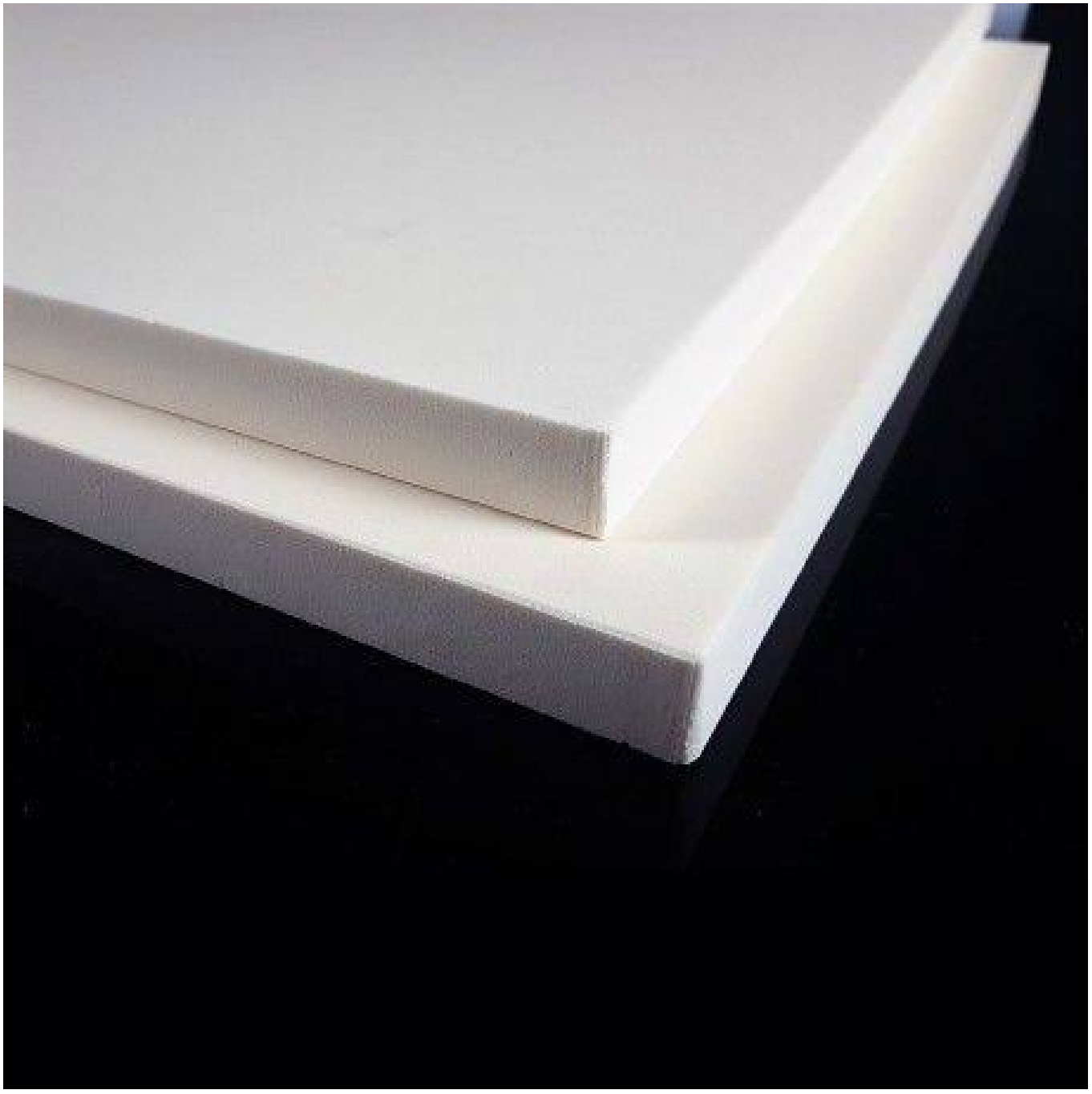
Applications

1 Benzyldimethylamine (BDMA) is used as an accelerator in epoxy casting resins using acid anhydride curing agents.
2 Benzyldimethylamine (BDMA) is preferred to 2-Dimethylaminoethanol & Tris-2,3,6-(dimethylaminomethyl)phenol due to its less viscous nature which allows for longer shelf life.

Benefits

1 It gives very good flow and adhesion.
2 Accelerator for epoxy resins in laminates for electrical equipment.
3 Initiator in the production of epoxy resins.

Upto 1% Benzyldimethylamine (BDMA) (based on total resin weight) is recommended for Phthalic, Hexahydrophthalic, Dodecenyl succinic, Chlorendic and mixed pyromellitic- Maleic Anhydrides. Benzyldimethylamine accelerates almost all anhydride based hardners.
One should note however that when using BDMA a concentration of 2.5-3% is required in the epoxy resin, which is twice as much as Tris-2,3,6-(dimethylaminomethyl)phenol and 25% more than 2-Dimethylaminoethanol.
Benzyldimethylamine (BDMA) is used as catalyst / curing agent for Polyurethane based injection resin which is a two components, low viscosity polyurethane resin used for sealing water leaks through cracks in concrete structures. Water is poured after 1-2 hours after the resin mixture stabilises whereby the resin expands upto 10 to 15 times the original volume. This reaction produces an impermeable, closed cell, hydrophobic type, flexible foam that displaces water and tenaciously adheres to the damp substrate. The flexibility of the cured resin allows movement at the existing crack, thereby preventing transfer of stress to other areas of the structure.



Specifications

Test	Specification	Test Method
Appearance	Form: Transparent liquid Colour: Colourless to light yellow	Visual
Purity	> 99.0 %	By AAS
Moisture content	< 0.3 %	Oven drying at 105 Deg C
Boiling Range	178 - 181 Deg C	Boiling point apparatus
Specific Gravity	0.892 - 0.898	Gravimetric Analysis.

Product FDA Status

It is not registered in food contact applications by US FDA.

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