

Innovative Heavy Duty Hardener
Based on MXDA

Gaskamine Endeavor

Modified Polyamine Hardener



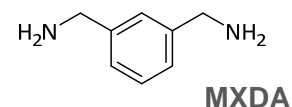
Gaskamine Endeavor Advantages

- **Low Irritation (Phenol Free)**
- **Ready to Use**
- **Fast Cure** even at **Low Temperature**
- **Excellent Chemical Resistance**

Compositions & Properties

Compositions

MXDA Derivatives	n-Butanol	MXDA
60 wt%	40 wt%	<1 wt%



Properties

Color (Gardner)	Viscosity (25°C)	Solids	Equivalent Wt (H)	Phr ^(*)
<1	7,750 mPa·s	60 wt%	257	41 g

(*)...Added Weight in 100g Standard Epoxy Resin (#1001X75)



*Suitable for other
various applications...*



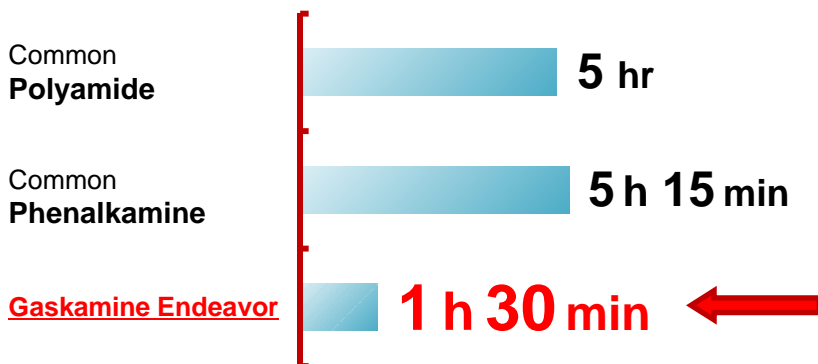
Industrial Adhesives



Tank Coatings

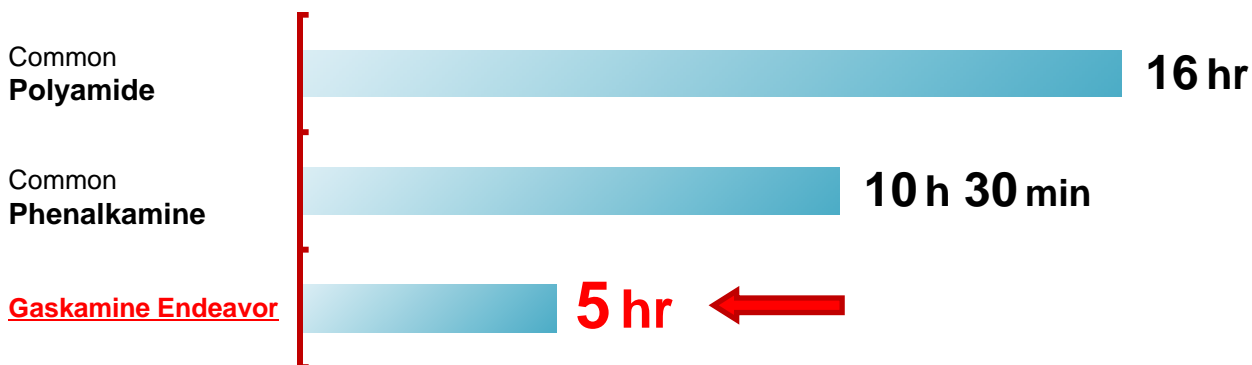
Fast Curing: *Even at Low Temperature*

23°C 50%RH Curing Time (*Dust Free*)



Less Waiting !
More Productivity

5°C 80%RH Curing Time (*Dust Free*)



No Blushing: *Excellent Chemical Resistance*

Hardener	Water (23°C 2 weeks)	5wt% 35°C Salt Spray (35°C 4 weeks)	10wt% NaOH aq. (23°C 2 weeks)	10wt% Sulfuric Acid (23°C 2 weeks)
Gaskamine Endeavor	★★★★★ Excellent	★★★★★ Excellent	★★★★★ Excellent	★★★★★ Excellent
M37TB60 Mannich MXDA	★★★★★ Excellent	★★★★★ Excellent	★★★★★ Excellent	★★★★★ Excellent
Common Polyamide	★★★ Good	★ Poor	★ Poor	★★ Fair

Epoxy Resin: Solid Type Epoxy Resin of Bisphenol A Diluted by Xylene (#1001X75(EEW628)), Curing Condition: 23°C, 50%RH, 2 weeks

Spray Condition: 35°C, 50%RH, 4 weeks
Test Piece: SPCC-SD PB-N144
(Zinc phosphate-treated steel plate)

5wt% Salt Spray (Cross-Cut)



Gaskamine Endeavor



**M37TB60
Mannich MXDA**



Common Polyamide

Contact Information

www.aromaticchemicals.com



Japan

Mitsubishi Gas Chemical Co., Inc.

Phone: +81-3-3283-4754

E-Mail: mxda@mgc.co.jp

Europe

Mitsubishi Gas Chemical Europe GmbH

Phone: +49-211-363080

E-Mail: contact@mgc-europe.de

Singapore

Mitsubishi Gas Chemical Singapore Pte. Ltd.

Phone: +65-6224-0059

E-Mail: contact@mgcs.com.sg

China

Shanghai Ryoyo Trading Co., Ltd.

Phone: +86-21-5228-0585

E-Mail: fengqiaojie@ryoyotrading.com

USA

Mitsubishi Gas Chemical America, Inc.

Phone: +1-212-687-9030

E-Mail: contact@mgc-a.com

Thailand

MGC Trading Thailand Ltd.

Phone: +66-2-670-3417,3418

E-Mail: contact@mgc.co.th