

AMICURE® IC-40 Curing Agent for Polyisocyanate Resin**DESCRIPTION**

Amicure IC-40 curing agent based clear and pigmented coatings exhibit rapid property development, high aesthetics and can be formulated for exterior application. The use of an epoxy primer is recommended, especially under damp conditions. Working times and dry times are significantly accelerated under high humidity and temperature. The product can be cured with HDI trimer and biuret type isocyanates.

ADVANTAGES

- Long Pot life
- Low color and excellent UV durability
- Excellent surface appearance
- Zero VOC

APPLICATIONS

- Industrial Coatings
- Floor Coatings

SHELF LIFE

At least 18 months from the date of manufacture in the original sealed container at ambient temperature. Store away from excessive heat and humidity and avoid contact with moisture. Recommended storage temperature is 0-40°C.

STORAGE AND HANDLING

Refer to the Safety Data Sheet for Amicure IC-40 curing agent.

TABLE 1: TYPICAL PROPERTIES

Appearance	Light yellow liquid
Colour¹ (Gardner)	≤2
Viscosity² @ 25°C (mPa.s)	500-1500
Water Content³ (wt %)	≤0.015
Specific Gravity @ 21°C	1.06
Equivalent Wt/{H}	288-294
Recommended Use Level⁴ (PHR)	135-145

**TABLE 2: TYPICAL HANDLING PROPERTIES⁴
25°C, 50% RH**

Mix Viscosity² (mPa.s)	2000-3000
Working Pot Life⁵ (min)	3-4
Thin Film Set Time⁶ (h)	11
Persoz Hardness⁷ after 1 / 7 days (s)	210/270
Shore D Hardness⁸ after 1 / 7 days (s)	25/84
Typical cure schedule	2-7 days

TABLE 3: TYPICAL PERFORMANCE PROPERTIES⁴

UV-A Resistance⁹ after 500 h (ΔE)	3.5
Impact Resistance¹⁰ Direct/Reverse (kg.cm)	40/40
Abrasion Resistance¹¹ CS17, 1000 cycli (mg loss)	40
Tensile Strength¹² (MPa)	34
Tensile Elongation at Break¹² (%)	3

- (1) ASTM D 1544
- (2) Brookfield RVTD, spindle 4
- (3) Karl Fisher Method
- (4) With HDI Trimer, 21.8 wt% NCO, 2500 mPa.s at 25°C
- (5) Time to viscosity build of 12 Pa.s
- (6) ASTM D 5895 - BK Drying Recorder, Phase 3
- (7) ISO 1522
- (8) DIN 53505, 3 mm thick casting
- (9) ASTM G154-06
- (10) ISO 6272
- (11) ISO 7784; CS17 wheels, 1000 cycles
- (12) ISO 527

Epoxy Curing Agents and Modifiers

AMICURE® IC-40 Curing Agent for Polyisocyanate Resin

EVONIK RESOURCE EFFICIENCY GMBH
Business Line Crosslinkers
Paul-Baumann-Straße 1
45764 Marl
Germany

apcsepx@evonik.com
www.evonik.com/crosslinkers

This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. EVONIK EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, NON-INFRINGEMENT, MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION AND RECOMMENDATIONS PROVIDED. Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and/or recommendations at any time, without prior or subsequent notice.

