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## MC-AT-1 Acrylic polyurethane topcoat

### Product description

MC-AT-1 is a high-build acrylic polyurethane topcoat cured with aliphatic isocyanate. The cured film exhibits not only good adhesion, abrasion resistance and high gloss, but also good weather resistance and medium resistance. The feature of protective and cosmetic functions makes this product excellent long term durability.

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### Recommended use

Suitable for use in the steel structure with high requirements for gloss and color retention, and also can be used for wood and cement products. The maximum service temperature at dry condition is 120°C.

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### Recommended film thickness and spreading rate

Film thickness, dry(μm)	30~80
Film thickness, wet(μm)	50~133.3
Theoretical spreading rate, m <sup>2</sup> /l	20 7.5

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### Basic characteristics

Color	Various color
Volume Solids, %	60± 2 (white)
Flash Point, °C	30 ± 2
Density (mix), g/ml	1.2±0.0
VOC, g/l	350 ± 10
Gloss	Glossy
Gloss retention	Excellent
Water resistance	Good
Abrasion resistance	Very good
Solvent resistance	Good
Chemical resistance	Good
Flexibility	Very good

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### Surface preparation

#### Coated surfaces:

Clean, dry and undamaged compatible primer.

Damage areas should be blasted to  $sa2 \frac{1}{2}$  or power tool cleaning to the standard St3, and primed.

#### Other surfaces:

The topcoat can be used on other substrates. Please contact our company for more information.

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### Condition during application

Because solvent evaporates faster at higher temperature in summer, dry spray is prone to appear. Care should be taken and use of extra thinner may be necessary to avoid dust-spray.

The temperature of the substrate should be at least 3°C above the dew point of the air, temperature and relative humidity measured in the vicinity of the substrate. The maximum relative humidity does not exceed 85%. Avoid application in rainy or wet weather. Good ventilation is usually required in confined areas to ensure proper drying.

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**Application methods**

Spray: use airless spray or air spray

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**Application data**

Mixing agitate component A and component B respectively, and then mixed thoroughly

Mixing ratio (weight) A:B=20:3

Pot life (23°C) 4 hours (Reduced at higher temperature)

Thinner/Cleaner MC-AX-1

Recommended airless spray parameters

Usage of thinner 0~15% (weight)

Pressure at nozzle 15~20 MPa (about 150~200 kg/cm<sup>2</sup>) .

Nozzle tip 0.33~0.46 mm.

Spray angle 40~80°

Filter Check to ensure that filters are clean.

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**Drying time**

Drying times are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly. The figures given in the table are typical with:

Good ventilation (Outdoor exposure or free circulation of air)

Typical film thickness

One coat on top of inert substrate

Substrate temperature, °C	0	5	10	23
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Surface dry, h	2	1.5	1	0.5
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Through dry, h	72	48	24	16
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Cured, d	14	10	7	5
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Dry to recoat, minimum, h	72	48	24	16
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Dry to recoat, maximum\*

The surface must be free from any chalking or any other contamination and if necessary, sufficiently roughened prior to application.

The given data must be considered as guidelines only. The actual drying time/ recoat interval may be shorter or longer, depending on film thickness, ventilation, humidity, underlying paint system, requirement for early handling and mechanical strength etc. .

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**Typical paint system**

Epoxy primer or MIO epoxy coating		130 μm
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Acrylic polyurethane topcoat	μm	2×40
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Other systems may be formulated, depending on specific circumstances.

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**Note**

Acrylic polyurethane topcoat must be diluted with specified thinner, if not it will affect the quality of the product. During mixing and coating, it is strictly prohibited from contacting with water, acid, alkali, alcohol, etc.. Because the curing agent can react easily with water, alcohol and other substances, the package of unmixed curing

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agent should be covered tightly after mixing. During application and curing, the relative humidity shall not be greater than 85%.

Condensation occurring on film surface during or immediately after application may result in a matt finish, surface blushing and an inferior film. Before recoating after the film aged, make sure the original coating is fully cleaned and all surface contamination is removed.

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#### **Storage**

Storage conditions are to keep the containers in a cool, dry, well ventilated space and away from source of heat and ignition.

Containers must be kept tightly closed.

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#### **Handling**

Handle with care.

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#### **Packing size**

Component A in an 18 litre container and component B in a 4 litre container, or negotiation.

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#### **Health and safety**

Before and during use of this product, please observe the precautionary notices displayed on the container. Be careful to avoid inhalation and skin contact of paint. Spillage of paint on the skin should immediately be removed with a suitable cleanser, soap and water. Avoid using organic solvent. Eyes should be well flushed with water and then seek medical attention immediately. The product should be used under well-ventilated condition. If using in stagnant condition and narrow place, forced ventilation must be provided, and applicators should take corresponding measures to strengthen personnel protection.

**For detailed information on the health and safety and precautions for use of this product, please consult our company.**

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