

Photocatalyst fluid

M-5

7.Sep.2003



1. Description

M-5 is the first product registered with the Photocatalysis Industry Association of Japan.

https://www.piaj.gr.jp/piaj_product/productEngList.html

This product is also first visible reaction type of photocatalyst coating fluid in Japan.







Character	<ul style="list-style-type: none">➤ Transparency coated film➤ Make 3 hardness film➤ Water based fluid➤ Dry out is normal temperature.➤ Used several material surface➤ Used safety material for human body
Appearance	Buff white-yellow
Fluid type	Water based fluid
Main component	TiO ₂
Dry temperature	At normal temperature
Dry out time	Over 24 hours (Atmosphere 20degC)
Application method	Spray gun or brash, roller
Spread quantities	15 - 35 g / 1 sq. m
Appearance of dry out	Transparency - turbidness
Note	This product has high photocatalysis effect, it apply on several surface before applied BasecoatS and protect base organic material from photocatalysis decomposed effect.

2. Photocatalysis effect

Photo1 is checked photocatalysis power parallel between UV reacting type and Visible light reacting type.

Both of them were the same condition and exposed by only fluorescent light.

Photo1 Decomposition rate with methylene blue

Type \ Time	Start	48 hours	80 hours
Normal type of Photocatalyst			
Photocatalysis by Visible light (M-5 type)			

Photocatalysis of visible light type is high-performance and high degradable than UV reacting type. It using wavelength area is expanded more than UV type. Photocatalysis speed has 5 times and more until now.

3. Transparency

M-5 coated film is high transparency.

Photo2 glass of left surface is coated M-5 and right surface is natural. They cannot confirm coating boundary line.

4. Application

- (1) Indoor
- (2) No window room
- (3) Filled high gas concentration area
- (4) Low lighting room
- (5) High transparency part
- (6) Air conditioner



5. Decay Durability Tests

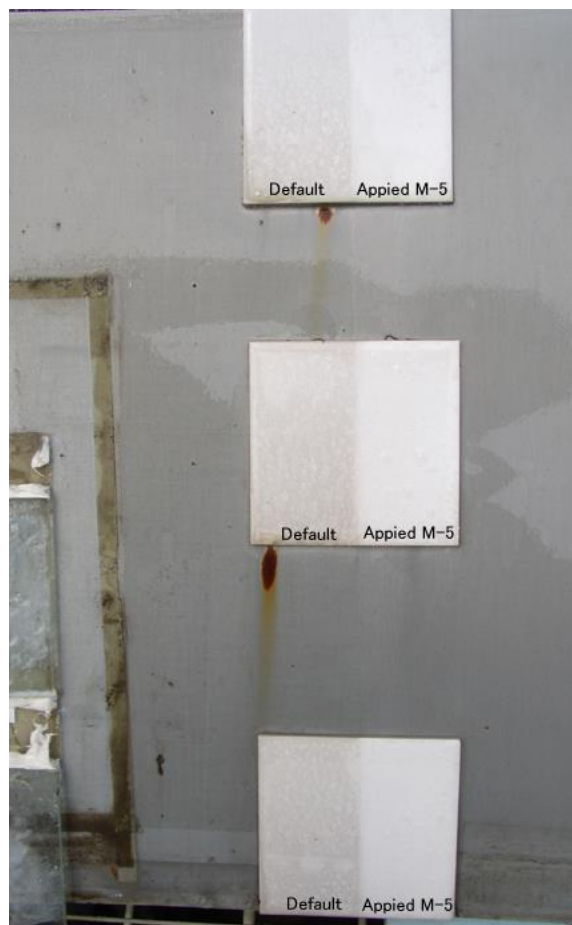
(1) Weather Resistant Test

The M-5 coated tiles are exposed and tested by an accelerated weathering process of 300 hours. This test is to confirm any exfoliation and photo-catalyst effect.

(2) Exposure Test

The M-5 coated tiles have been exposed to weather since June. 16. 2003 (the tiles were also subjected to a weather resistant test).

The right side of the steel plate is coated with the M-3 compound the complete plate has been exposed since January. 30. 2001



The M-5 coated surfaces show effective self-cleaning effects.

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