

# SIGMASHIELD™ MTC

## DESCRIPTION

Premium dry cargo hold product based on bi-phasic polymer composition delivering excellent Mechanical, Thermal and Chemical protection

## PRINCIPAL CHARACTERISTICS

- 2-pack polymeric epoxy / amine providing kick-start cure and faster return to service
- Excellent abrasion and impact resistance
- Excellent gouging resistance, even at elevated temperatures
- Excellent chemical resistance to a wide range of active dry bulk cargoes

## COLOR AND GLOSS LEVEL

- Redbrown, gray
- Low sheen

## BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.5 kg/l (12.5 lb/US gal)
Volume solids	65 ± 2%
VOC (Supplied)	Directive 2010/75/EU, SED: max. 267.0 g/kg max. 399.0 g/l (approx. 3.3 lb/US gal)
Recommended dry film thickness	100 µm (4.0 mils)
Theoretical spreading rate	6.4 m <sup>2</sup> /l for 100 µm (257 ft <sup>2</sup> /US gal for 4.0 mils)
Dry to touch	2 hours
Overcoating Interval	Minimum: 2.5 hours Maximum: 3 months
Full cure after	7 days
Shelf life	Base: at least 24 months when stored cool and dry Hardener: at least 24 months when stored cool and dry

### Notes:

- See ADDITIONAL DATA – Spreading rate and film thickness
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time

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## RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

### Substrate conditions

- Surface must be free from grease, salts and any contamination
  - Coated steel; adhesion will be improved by mechanical pretreatment of the existing, aged coating system
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### Substrate temperature and application conditions

- Relative humidity during application and curing should not exceed 85%
  - Substrate temperature during application and curing should be at least 3°C (5°F) above dew point
  - Ambient temperature during application should be at least 5°C (41°F)
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## INSTRUCTIONS FOR USE

### Mixing ratio by volume: base to hardener 4:1

- The temperature of the mixed base and hardener should preferably be above 15°C (59°F), otherwise extra thinner may be required to obtain application viscosity
  - Adding too much thinner results in reduced sag resistance and slower cure
  - Thinner should be added after mixing the components
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### Pot life

2.5 hours at 20°C (68°F)

Note:

- See ADDITIONAL DATA – Pot life
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### Air spray

#### **Recommended thinner**

THINNER 91-92

#### **Volume of thinner**

0 - 5%, depending on required thickness and application conditions

#### **Nozzle orifice**

1.5 – 2.0 mm (approx. 0.060 – 0.079 in)

#### **Nozzle pressure**

0.3 - 0.4 MPa (approx. 3 - 4 bar; 44 - 58 p.s.i.)

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**Airless spray**

**Recommended thinner**

THINNER 91-92

**Volume of thinner**

0 - 3%, depending on required thickness and application conditions

**Nozzle orifice**

Approx. 0.53 – 0.74 mm (0.021 – 0.029 in)

**Nozzle pressure**

15.0 MPa (approx. 150 bar; 2176 p.s.i.)

**Brush/roller**

**Recommended thinner**

No extra thinner is necessary

**Volume of thinner**

Up to 5% THINNER 91-92 can be added if desired

**Cleaning solvent**

- THINNER 90-53

**ADDITIONAL DATA**

Spreading rate and film thickness	
DFT	Theoretical spreading rate
100 µm (4.0 mils)	6.5 m <sup>2</sup> /l (261 ft <sup>2</sup> /US gal)

Overcoating interval for DFT up to 150 µm (6.0 mils)						
Overcoating with...	Interval	5°C (41°F)	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
itself	Minimum	13 hours	6 hours	2.5 hours	1.5 hours	1 hour
	Maximum	3 months	3 months	3 months	3 months	3 months

Note:

- Surface should be dry and free from any contamination



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Curing time for DFT up to 150 µm (6.0 mils)			
Substrate temperature	Dry to touch	Dry to handle	Full cure
10°C (50°F)	3 hours	8 hours	14 days
20°C (68°F)	2 hours	5 hours	7 days
30°C (86°F)	1 hour	3 hours	5 days
40°C (104°F)	30 minutes	2 hours	4 days

Note:

- Adequate ventilation must be maintained during application and curing

Pot life (at application viscosity)	
Mixed product temperature	Pot life
15°C (59°F)	5 hours
20°C (68°F)	2.5 hours
30°C (86°F)	2 hours

## SAFETY PRECAUTIONS

- See Safety Data Sheet and product label for complete safety and precaution requirements
- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes

## WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective & Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

## REFERENCES

- Information sheet | Explanation of product data sheets

## WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.



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