



MapeWrap[®] 11 MapeWrap[®] 12

Structural Epoxy Putty Adhesives for Use with Structural Strengthening Systems



DESCRIPTION

MapeWrap 11 and MapeWrap 12 are two-component, 100%-solids, moisture-tolerant, structural epoxies used as adhesives for the *Carboplate*[®] composite system. *MapeWrap 11* and *MapeWrap 12* are also used for leveling uneven concrete or masonry surfaces before application of *MapeWrap* fabrics or *Carboplate* and *Maperod*[™] C laminates.

FEATURES AND BENEFITS

- 100%-solids, thixotropic epoxy adhesives
- Solvent-free and VOC-compliant
- Moisture-tolerant
- Two separate epoxy resin adhesives tailored for different temperature ranges and workability levels

WHERE TO USE

- Use on interior/exterior horizontal, vertical and overhead applications
- For bonding *Carboplate* laminate systems to concrete, masonry, wood and steel
- For leveling uneven concrete or masonry surfaces before applying *MapeWrap* composite systems
- For surface sealing before epoxy crack injection
- For bonding steel plates to concrete and wood

SUITABLE SUBSTRATES

- Use on structurally sound, fully cured concrete substrates (at least 28 days old), as well as on masonry, wood and steel.
- Consult MAPEI's Technical Services Department for installation recommendations regarding substrates and conditions not listed.

SURFACE PREPARATION

For use as a leveler

- Apply *MapeWrap 11* or *MapeWrap 12* to a properly prepared and primed substrate. For details on proper surface preparation, refer to the Technical Data Sheet (TDS) for *MapeWrap Primer 1*.

For use as an adhesive

- Apply *MapeWrap 11* or *MapeWrap 12* to a properly prepared and primed substrate. For details on proper surface preparation, refer to the TDS for *MapeWrap Primer 1*.

MIXING

Before product use, take appropriate safety precautions. Refer to the Safety Data Sheet for details.

1. Select *MapeWrap 11* or *MapeWrap 12*, whichever is best suited to the expected ambient temperature at the time of application.
2. Pre-mix Part A with a low-speed mixer (at 300 to 550 rpm) and a standard Jiffy paint-mixing paddle for 3 minutes to eliminate segregation of the material accumulated during storage.



3. Pour Part B into Part A and mix with a low-speed mixer (at 300 to 550 rpm) and a standard Jiffy paint-mixing paddle for 3 minutes. Mix until the material has a smooth, homogenous consistency (the same gray color throughout).
4. Part A and Part B components are pre-proportioned (mixing ratio is 3 parts by weight of Part A and 1 part by weight of Part B) and should be mixed as full units. Partial mixing of Part A and Part B is prohibited.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation. When applying the products in a closed environment, provide good ventilation. For further information, carefully read the SDS of each product.

For use as a leveler

1. Apply *MapeWrap 11* or *MapeWrap 12* with a spring steel trowel.
2. Apply the material using a tight trowel technique so that only small voids and low areas of the substrate are leveled with *MapeWrap 11* or *MapeWrap 12*. Avoid thick or high-build applications.

For use as an adhesive with *Carboplate* systems

1. Apply a uniform layer of *MapeWrap 11* or *MapeWrap 12* from 1/32" to 1/16" (1 to 1.5 mm) thick with a flat trowel over *Carboplate* on the side where the protective film has been removed.
2. Depending on the ambient temperature, apply a 1/32" (1-mm) layer of either *MapeWrap 11* or *MapeWrap 12* with a notched trowel on the clean and dry substrate that will receive *Carboplate*.

CLEANUP

- Due to the high bond strength of *MapeWrap 11* or *MapeWrap 12* on metal, clean tools with approved solvents (ethyl alcohol, toluene, etc.) before the product dries. Cured material can only be removed mechanically. Dispose of cured material in accordance with local, state/provincial and federal regulations.

LIMITATIONS

- Apply *MapeWrap 11* when the ambient and surface temperature is between 40°F and 73°F (4°C and 23°C), or *MapeWrap 12* when the ambient temperature is between 73°F and 90°F (23°C and 32°C).
- Contact MAPEI's Technical Services Department regarding applications below 40°F (4°C) and above 90°F (32°C).
- Do not thin *MapeWrap 11* or *MapeWrap 12* with solvents.

Product Performance Properties*

Laboratory Tests	Results	
	MapeWrap 11	MapeWrap 12
Consistency (mixed)	Thixotropic paste	Thixotropic paste
Color (mixed)	Dark gray	Dark gray
Specific gravity	1.55 g per cm ³	1.55 g per cm ³
Mix ratio (by weight)	Part A to Part B = 3 to 1	Part A to Part B = 3 to 1
VOCs (Rule #1113 of California's SCAQMD)	< 50 g per L	< 50 g per L
Set time		
At 50°F (10°C)	7 to 8 hours	14 to 16 hours
At 73°F (23°C)	3 to 3-1/2 hours	4 to 5 hours
At 86°F (30°C)	1-1/2 to 2 hours	2-1/2 to 3 hours
Complete curing	7 days	7 days
Adhesion to concrete at 7 days and 73°F (23°C)	> 435 psi (> 3 MPa)	> 435 psi (> 3 MPa)
Tensile strength at 7 days (ASTM D638)	2,774 psi (19.1 MPa)	3,369 psi (23.2 MPa)
Tensile elongation at 7 days (ASTM D638)	1.23%	1.32%
Compressive strength at 7 days (ASTM C579)	10,774 psi (74.3 MPa)	10,638 psi (73.4 MPa)
Bond strength (ASTM C882)		
2 days (moist-cured)	2,334 psi (16.1 MPa)	2,742 psi (18.9 MPa)
14 days (moist-cured)	3,139 psi (21.6 MPa)	3,188 psi (22.0 MPa)
Flexural strength (ISO 178)	5,800 psi (40 MPa)	5,800 psi (40 MPa)
Modulus of elasticity under compression (ASTM C579)	1.16 x 10 ⁶ psi (8 000 MPa)	1.16 x 10 ⁶ psi (8 000 MPa)
Modulus of elasticity in flexion (ISO 178)	580,000 psi (4 000 MPa)	580,000 psi (4 000 MPa)

* Based on testing of cured samples per ASTM D638 at 72°F (22°C) and 40% relative humidity

Shelf Life and Application Properties

Shelf life	2 years in original, unopened container in a covered area	
Storage conditions	50°F to 86°F (10°C to 30°C). Protect from freezing in shipment and storage.	
Working time	MapeWrap 11	MapeWrap 12
At 50°F (10°C)	60 minutes	150 minutes
At 73°F (23°C)	40 minutes	60 minutes
At 86°F (30°C)	20 minutes	35 minutes

Packaging

Size
MapeWrap 11 kit (Parts A and B): 1 U.S. gal. (3.79 L)
MapeWrap 12 kit (Parts A and B): 1 U.S. gal. (3.79 L)

Approximate Coverage per 1 U.S. gal. (3.79 L)

For use as a leveler
50 to 150 sq. ft. (4.65 to 13.9 m ²)
For use as an adhesive
At 1.97" (5 cm) width = 80 to 95 linear feet (18.3 to 22.9 m) of laminate
At 3.94" (10 cm) width = 35 to 45 linear feet (9.14 to 12.2 m) of laminate



MapeWrap 11
MapeWrap 12



Refer to the SDS for specific data related to health and safety as well as product handling.

For information on MAPEI's commitment to sustainability and transparency, as well as how MAPEI meets the health and well-being requirements of product certification programs, contact the MAPEI Sustainability Team at 1-800-992-6273.

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at

www.mapei.com. **ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.**

Before using, the user must determine the suitability of our products for the intended use,

and the user alone assumes all risks and liability. **ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.**

We proudly support the following industry organizations:



ICRI



TTMAC ACTTM



American Concrete Institute®



THE ADHESIVE AND SEALANT COUNCIL
SECURING THE FUTURE



CTDA



MAPEI Headquarters of North America
1144 East Newport Center Drive
Deerfield Beach, Florida 33442
1-888-US-MAPEI (1-888-876-2734) /
(954) 246-8888

Technical Services
1-888-365-0614 (U.S. and Puerto Rico)
1-800-361-9309 (Canada)

Customer Service
1-800-42-MAPEI (1-800-426-2734)

Services in Mexico
0-1-800-MX-MAPEI (0-1-800-696-2734)

Edition Date: July 1, 2019
MK 3001006 / 3001020 (19-1839)