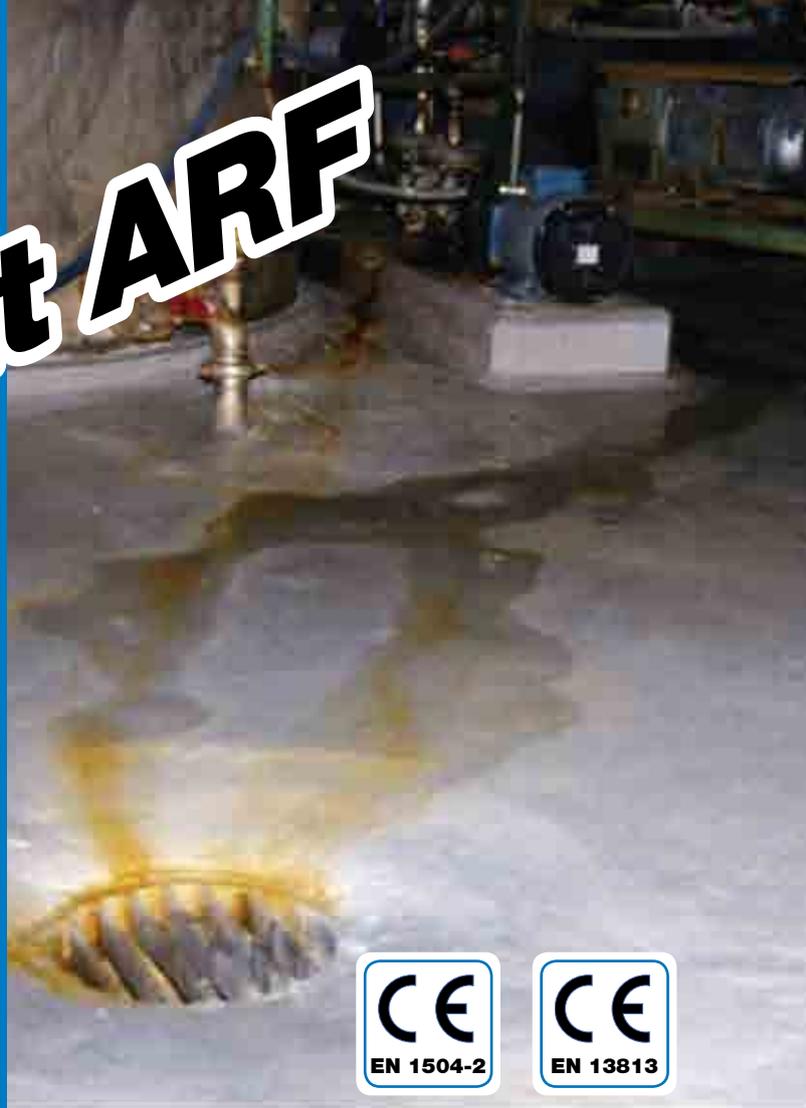




# Mapecoat ARF

## Vinylester coating



### AREA OF USE

Mapecoat ARF is used as chemical resistant coating/liner for floors and walls.

Mapecoat ARF is suitable for use within chemical industry, purification plants, agricultural buildings etc.

Mapecoat ARF is suitable for use in tanks and cisterns – and is suitable for laminating glass fiber.

Mapecoat ARF is normally applied on concrete and other cement- based substrates.

### TECHNICAL CHARACTERISTICS

Mapecoat ARF is a wear resistant vinylester coating for floors and walls.

Mapecoat ARF gives a very chemically resistant, hard, smooth surface that is easy to clean.

Mapecoat ARF is delivered in grey color.

Mapecoat ARF complies with the principles defined in EN 1504-9 standards (*“Products and systems for protecting and repairing concrete structures. Definitions, requirements, quality control and conformity assessment. General principles for the use and application of systems”*), and the requirements of EN 1504-2 (*“Protection systems for concrete surfaces”*) for class: products for protecting surfaces - coating (C) – PR or CR.

Mapecoat ARF complies with EN 13813.

### APPLICATION PROCEDURE

#### Preparation of the substrate:

The concrete must be sound, clean and dust-free with a smooth permanent surface. Normal cleaning methods such as milling, grinding or shot blasting can be used. The substrate’s surface temperature should be at least +10 °C and at least 3 °C above the applicable dew point during product application.

#### Preparation of the product:

Components A and B should have a temperature of +15 °C or more when mixed together. Component B is poured into component A and mixed with a drill whisk at slow speed for approximately 3 minutes until the product is completely homogenous.

Be sure to mix well the bottom and sides of the container.

The product must not be diluted!

#### Application of the product:

##### Used as a multilayer skid resistant coating:

###### a. Primer

The surface should always be prepared with a primer **Mapecoat L-L** that is broadcasted with dry sand with a grain size of 0.4-0.8 mm. The primer is best applied using a roller or a smooth trowel.

Please take notice that **Mapecoat L-L** has to cure for 48 hours at 20 °C before further treatment.

Mapecoat ARF: Vinyl ester coating. The product complies with specification in EN 13813 and EN 1504-2 Coating (C) principles: PR and CR

## TECHNICAL DATA (typical values)

PRODUCT DETAILS		Component A	Component B
Color:		grey	transparent
Appearance:		liquid	liquid
Density (g/cm <sup>3</sup> ):		1.062	1.145
Brookfield viscosity at +23°C (mPa*s):		approx. 590	approx. 20
APPLICATION DATA			
Color of mixture:		grey	
Mixing ratio:		4.5:0.065 component A: component B	
Consistency of the mixture:		liquid	
Density of the mixture (kg/m <sup>3</sup> ):		1 062	
Brookfield viscosity of the mixture (mPa*s):		approx. 550	
Application temperature range:		+10°C - 30°C	
Potlife (EN 9514):		25 minutes	
FINAL PROPERTIES (7 days at +23°C og 50% R.H.)			
Final setting time:		7 days	
Shore D (ISO 868:2003):		approx. 80	
Performance characteristics for product or system	Test methods	Requirements according to EN 13813 for synthetic resin screeds	Product or system performance
Wear resistance:	EN 13892-4	< AR1	AR0.5
Bond strength:	EN 13892-8:2004	> 2.0 N/mm <sup>2</sup>	> 4.4 N/mm <sup>2</sup>
Impact resistance:	EN 6272-1	> IR4	> IR4
Reaction to fire:	EN 13501-1	Declared value	E <sub>n</sub>
Performance characteristics for product or system	Test methods	Requirements according to EN 1504-2	Product or system performance
Abrasion resistance:	EN ISO 5470-1	< 3000 mg H22/1000 cycles/load 1000 g	< 150 mg
Capillary absorption and permeability to water:	EN 1062-3	w < 0.1 kg/m <sup>2</sup> *h <sup>0.5</sup>	w < 0.01 kg/m <sup>2</sup> *h <sup>0.5</sup>
Resistance to severe chemical attack Class I: 3 days with no pressure Class II: 28 days with no pressure Class III: 28 days with pressure We recommend using test liquids for the 20 classes indicated in EN 13529, which cover the most common chemical agents. Other test liquids may be agreed upon between those interested in the tests.	EN 13529	Reduction of hardness less than 50% when measured according to the Buchholz method, EN ISO 2815 or the Shore method (EN ISO 868), 24 hours after removing the coating material from immersion in the test liquid.	Petrol: Class II; Benzene: Class II; Mix(48% MeOH, 48% Isopropanol, 4% H2O):Class II; MeOH: Class II; Clorobenzene: Class II; Ethyl acetate/ MIBK (50%/50%): Class I; Formaldehyde: Class II; Acetic acid (10%): Class II; Sulphuric acid (70%): Class II; NaOH (30%): Class II; Diethylether; class II
Impact resistance:	EN 6272-1	Class I: ≥ 4 Nm Class II: ≥ 10 Nm Class III: ≥ 20 Nm	Class I
Pull-off test Reference substrate: MC (0.40) as specified in EN 1766, curing time 7 days:	EN 1542	Average (N/mm <sup>2</sup> )  Crack-bridging or flexible systems with no traffic: ≥ 0.8 (0.5) with traffic: ≥ 1.5 (1.0)  Rigid systems with no traffic: ≥ 1.0 (0.7) with traffic: ≥ 2.0 (1.0)	> 4.4 N/mm <sup>2</sup>

### b. Multilayer coating

**Mapecoat L-L** should be applied in an even layer using a roller or rubber squeegee, and covered to complete saturation using dry sand with a grain size of 0.4-0.8 mm or 0.7-1.2 mm, Even more chemical resistant aggregates can also be used.

If needed a chopped strand mat like **Glassfibernatte M119 (150g/m<sup>2</sup>)** can be used as reinforcement to avoid stress build-up in the coating.

### c. Topcoat

Aggregates that do not adhere to the surface must be removed from the dry and cured coating, and several thin layers of **Mapecoat ARF** are applied using a roller or rubber squeegee.

#### Used as a liner/wallcoating:

##### a. Intermediate layer (optional)

Apply epoxy/cement-based mortar

**Mapepoxy Cem-S** as an intermediate layer in approx. 1.5-2 mm thickness to level and to fill the pores in the concrete surface. Spread and smooth the material onto the prepared surface using basic mason's tools, steel trowel or a steel float.

##### b. Primers

The pretreated and pore free surface should always be prepared with a primer **Mapecoat L-L** that is broadcasted with dry sand of grain size of 0.4-0.8 mm. The primer is best applied using a roller on vertical surfaces.

Please take notice that **Mapecoat L-L** has to cure for 48 hours at 20 °C before further treatment.

##### c. Coatings

**Mapecoat ARF** should be applied using a roller or brush in two or more coats depending on the substrate and the intended thickness.

More thixotropic **Mapecoat ARF** can be obtained by adding **Cab-o-sil TS-720®**. It is advised to do preliminary tests.

If needed a chopped strand mat like **Glassfibernatte M119 (150g/m<sup>2</sup>)** can be used as reinforcement to avoid stress build-up in the coating.

#### PLEASE NOTE!

If the product is applied in areas with a high concentration of CO<sub>2</sub>, high moisture and/or temperatures less than 3 degrees above dew point, this might lead to problems with curing. Before any further treatment, this must be removed and the surface must be recoated.

#### CLEANING

Tools and equipment must be washed immediately after use with **Spesialynner**. Once hardened the product can only be removed mechanically.

#### CONSUMPTION

Used as a multilayer skid resistant epoxy paint approximately 0.5–0.8 kg/m<sup>2</sup> per coat.

Used as a liner/wall coating: approximately 0.3 – 0.4 kg/m<sup>2</sup> per coat.

For laminating with chopped strand mat: approx. 3 times the weight of the mat.

Consumption is dependent on the temperature and the substrate's coarseness and absorption.

#### PACKAGING

4.565 kg set: Component A = 4.5 kg  
component B = 0.065 kg

#### STORAGE

Properties for use are not changed for a period of 3 months when stored between + 5 and + 30 °C in unopened original packaging.

#### SAFETY INSTRUCTIONS FOR PREPARATION AND INSTALLATION

Instructions for the safe use of our products can be found on the latest version of the SDS available from our website [www.mapei.no](http://www.mapei.no)

PRODUCT ONLY FOR PROFESSIONAL USE!.

#### NOTE

*Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application: for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application: in every case, the user alone is fully responsible for any consequences deriving from the use of the product.*

Please refer to the current version of the Technical Data Sheet, available on [www.mapei.no](http://www.mapei.no)

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**All relevant references  
for the product are available  
upon request and at  
[www.mapei.no](http://www.mapei.no)**

**Mapecoat ARF**



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