

EMACO APS[®] T2040

Rapid setting repair mortar for industrial flooring

DESCRIPTION

EMACO APS T2040 is a fast setting three-component screedable patching mortar for floors utilising natural aggregate and binder based on the new APS polymer technology. It offers excellent resistance against impact, abrasion and scratching as well as chemical attack.

EMACO APS T2040 is available in two types namely: slow, and rapid version. They differ in their application temperatures:

Type	Temperature range
EMACO APS T2040 - <i>Slow</i>	+25°C to +40°C
EMACO APS T2040 - <i>Rapid</i>	-25°C to + 5°C

APS technology is a new and unique polymer technology researched and developed by BASF Construction Chemicals over the past 10 years and protected by international patents. The **APS** technology is remarkable in that a new base monomer was designed, synthesised and registered by BASF Construction Chemicals as a new chemical raw material. **APS** polymer technology has an endless scope of possibilities of repair mortars, grouts, adhesives, protective coatings etc. and making such products faster to handle, safer to apply and simpler to use.

RECOMMENDED FOR

Fast repairs in:

- food and beverage industry
- cold stores
- freezers
- rapid repairs to concrete slabs
- supermarkets
- airport runways and taxi ways
- roadways
- joint nosings

FEATURES AND BENEFITS

- applicable at freezing temperatures (-25°C)
- applicable at high temperatures (+40°C)
- no priming
- no curing
- non hazardous
- very low odour
- non tainting
- fast setting
- excellent physical properties
- pre-packaged and proportioned
- safe to use
- bonds to damp surfaces
- excellent durability
- high resistance to chemical and mechanical attack
- impermeable

TYPICAL PERFORMANCE DATA

	3 hrs	7 days	28 days
Compressive Strength (DIN EN 196-1)	45MPa	70MPa	70MPa
Flexural Strength (DIN EN 196-1)	20MPa	25MPa	25MPa
Modulus of elasticity MPa (DIN1048)		5300	6500
Impact Resistance (7 days) (DIN53453)			1.2-1.4 KJ/m ²
Abrasion Resistance (7 days) (ASTM D4060/90)		115mg/1000Rev (sanded)	
Tack free time at 20°C		2 hours (sanded)	5 hours (without sand)
Workability (DIN 18555) at 20°C			150%
Bond strength (ZTV-SIB)		>3.5MPa (24 hours)	
Temperature resistance approx.		- 30°C to 80°C	
Chemical resistance			excellent

NB. Alkaline materials, may need evaluation. Refer BASF Construction Chemicals Technical Consultants.

PROPERTIES

Supply form	3 pack system
Colour	cement grey
Specific gravity (kit)	2.35kg/L
Application temperatures:	
Slow version	+25°C to + 40°C
Rapid version	-25°C to + 5°C
Max.moisture content of substrate	8% by volume
Application thickness	4-5mm minimum

APPLICATION

Substrate conditions

All surfaces to be coated should be free from all oils, grease, dirt, dust, previous finishes and other contaminants, with a profile similar to medium sandpaper. Mechanical preparatory techniques are more controllable and are preferred.

Pre-conditioning

Pre-condition products to temperature expected during application, to achieve optimum work time. As temperature drops under 0°C, cure period will increase. Material will stiffen and be difficult to work in very cold freezers.



The Chemical Company

EMACO APS[®] T2040

Mixing

Mix Part A with Part B (full kits only). Slowly add Part C and continue to mix until uniform. Ensure the final mix is lump free and even in colour. All mixing should be done using a slow speed drill (maximum rpm 600) and a spiral-mixing paddle. Ensure all containers are completely empty before disposal. Use full kits only. When the material is to be applied at thicknesses greater than 20mm, the addition of extra filler is recommended. The addition of filler should be as below & added slowly to the mix after the addition of the Part C.

TYPICAL GRADINGS

Thickness	Part A	Part B	Part C
4/5-20mm: (standard kit)	2.4kg	0.4kg	22.5kg
20-50mm: (+ 12.5kg of aggregate - 2-4mm)	2.4kg	0.4kg	22.5kg
50-100mm: (+ 6.5kg aggregate - 2-4mm + 6.5kg aggregate - 4-8mm)	2.4kg	0.4kg	22.5kg
100-400mm: (+ 6.5kg aggregate - 2-4mm + 6.5kg aggregate - 8-16mm)	2.4kg	0.4kg	22.5kg

Maximum aggregate 13kg
All aggregates to be washed and kiln dried.

Application

Apply the mortar by trowel to the prepared surface at the required thickness. The use of screed rails may be of assistance. In instances of repair the edge of the repair should be square cut to a minimum of 3mm to avoid feather edging. Compact and form as required. Do not over trowel.

Prime with a standard kit of **EMACO APS T2040** when using aggregate extension, wet on wet.

POT LIFE

Pot life will vary depending on the ambient temperature product version used. As a guide:

EMACO APS T2040 slow:	at +30°C - 40 mins
EMACO APS T2040 rapid:	at 0°C - 30 mins

CURING

Cure time will vary, dependent on the ambient temperature. **EMACO APS 2040** should be allowed to cure for 2 - 6 hours protected from traffic and spillage. The final surface may, for a 24 hour period, exhibit a degree of residual 'tack'. This can be eliminated by broadcasting with clear dry sand after application and removing the sand before putting the area into service.

CLEANING

Uncured material may be removed using clean fresh water and detergent. Cured material can only be removed mechanically.

ESTIMATING DATA

2.35kg/m² @ 1mm thickness.

PACKAGING

Part A:	2.4kg
Part B:	0.4kg
Part C:	22.5kg
Yield:	10.76L

SHELF LIFE

EMACO APS T2040 may be stored in tightly closed original containers for 9 months in controlled environments.

PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the **BASF Material Safety Data Sheet (MSDS)** from our office or our website.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF** publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by **BASF** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **BASF**, are responsible for carrying out procedures appropriate to a specific application.

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