



MapePUR Universal Foam M

**One-component
expanding polyurethane
foams for filling gaps
and for soundproofing
and insulating work**



WHERE TO USE

MapePUR Universal Foam M is used to fill, seal and insulate gaps and breaks between a wide range of construction features and fittings used in the building industry and in plant systems.

Some application examples

- Insulating and soundproofing door frames, window frames and roller-blind housings.
- Filling and insulating gaps between different types of building materials.
- Fixing support frames in place for door and window fittings.
- Filling and insulating gaps between support frames and walls and support frames and fittings when installing doors and windows.
- Insulating through pipes for heating, air-conditioning and cooling systems.
- Filling and insulating construction features and fittings on roofs and flat roofs.
- Filling and insulating features and fittings used for insulated cladding systems.
- Bonding embedded electrical fittings such as cable-runs and junction boxes, including in plasterboard walls.
- Sealing formwork to make them leak-proof when pouring fluid concrete.

TECHNICAL CHARACTERISTICS

MapePUR Universal Foam M is a one-component expanding foam contained in a pressurized spray can with a hand lever to feed the product.

MapePUR Universal Foam M is a one-component expanding foam made from a mixture of polyurethane prepolymer, foaming agents and special additives and contain no CFCs that could damage the ozone layer. The extruded products expand upon contact with the humidity in the air and then harden rapidly to form a stable, closed-cell structure with excellent mechanical characteristics and high insulating and soundproofing properties.

MapePUR Universal Foam M is impermeable and is resistant to temperatures from -40°C to $+90^{\circ}\text{C}$, humidity and the effect of ageing. The foam adheres well to all materials normally used in the building industry such as brickwork, concrete, gypsum, wood, metal, glass, foam polystyrene, PVC and rigid foam polyurethane, and are also resistant to the formation of mould and mildew. Once hardened, **MapePUR Universal Foam M** can be cut, sanded, ground, drilled, skimmed with cementitious products and painted. According to DIN 4102 German standards they are in flammability class B3.



Filling gaps between a window frame and wall

RECOMMENDATIONS

MapePUR Universal Foam M will not adhere to polyethylene, silicone or Teflon. Also, once hardened, the foam must be protected from direct exposure to UV rays to prevent the surface being damaged.

The amount the foam expands depends on the size and shape of the cavity or gap to be filled, the amount of moisture in the substrate, the temperature of the can and how well the various components in the can are mixed together.

APPLICATION PROCEDURE

Substrate preparation

The surface on which the foam is to be applied must have no traces of dust, must be clean with no grease or oil stains and any loose or detached material must be removed. Protect delicate surfaces next to the area where the product is being applied with masking tape to prevent the product going onto them.

Preliminary operations before applying the foam

The surrounding temperature when applying the foam must be between +5°C and +30°C. The foam performs best (maximum expansion and hardening rate) if the can and contents are at a temperature of around +20 to +25°C.

Before applying the product, hold the can upside down and shake well for at least 30 seconds to thoroughly mix the contents of the can. The can should also be shaken every time application is interrupted for long periods in order to improve its yield and to improve application. Dampen substrates prior to application by spraying them with water.

Application of the foam

MapePUR Universal Foam M (manual application)

Remove the protective cap, shake the can and, screw the feed tube to the spray nozzle. Hold the can upside down, point the tube to the area where the foam is to be applied and press the hand lever. Feed the foam into the area starting from the lowest, deepest part and work upwards until the gap is filled to around 50-60% of its volume. The gap will become completely filled when the material has expanded.

To fill larger gaps (more than 5 cm wide), we recommend applying several layers of product; wait between each layer until the previous one has expanded before applying the next one.

Immediately after applying the product, we recommend spraying the foam with water to get a better yield and optimum polymerisation.

Once hardened, any excess foam can be cut, sanded, ground, drilled, skimmed with cementitious products or painted.

RECOMMENDATIONS BEFORE, DURING AND AFTER APPLICATION

If only part of the can of **MapePUR Universal Foam M** is used, we recommend holding the can vertically, blocking the end of the feed tube by bending it so the foam does not solidify and to allow the remaining product to be used later. If the tube is blocked by hardened foam replace it with a new one.

MapePUR Universal Foam M products, store the partially used can vertically after use. Before using it again, shake the can for 30 seconds as described previously.

MapePUR Universal Foam M is contained in pressurised cans and must be not be exposed to direct sunlight or temperatures higher than +50°C.

Cleaning

Once hardened the foam may only be removed mechanically.

YIELD

MapePUR Universal Foam M up to 45 litres*.

** Free expansion at +20°C and 60% R.H.*

The yield depends on the internal mixing of their components, the level of humidity and the temperature of the surrounding air and can.

PACKAGING

MapePUR Universal Foam M: 750 ml hand-held can. 12 cans per box.

STORAGE

MapePUR Universal Foam M may be stored for 18 months if kept vertical in a dry, covered area in their original sealed packaging at a temperature of between +10°C and +25°C.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

MapePUR Universal Foam M and MapePUR Universal Foam G

G are highly inflammable and stored in a pressurized spray can; we recommend storing them away from naked flames and sparks, to avoid smoking, to prevent the build up of electrostatic energy and to work in well ventilated areas. They may irritate the skin, eyes and respiratory track, cause sensitisation if they come into contact with the skin to those predisposed and with the respiratory tracks. They may cause irreversible damage if used for lengthy periods and are harmful if inhaled. When applying the product, we recommend using protective cloths, gloves and goggles, protecting the respiratory tracks wearing a mask and working in well ventilated areas. If the product comes into contact with the eyes or skin, wash immediately with plenty of clean water and seek medical attention. We advise against using these products in the presence of breastfeeding women.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

**MapePUR
Universal
Foam M**

Consistency:

cream

Colour:

yellow

Inflammable:

yes

APPLICATION DATA

Application temperature:

+5°C to +30°C

Optimum can/contents temperature:

+20°C to +25°C

Flammability class (DIN 4102):

B3

FINAL PERFORMANCE

Dust dry (at +23°C and 50% R.H.) (minutes):

5-10

In service temperature range:

-40°C to +90°C

Minimum waiting time before cutting hardened foam (Ø 20 mm at +20°C and 60% R.H.):

25-30 mins

Complete hardening time (h):

1½-5

Free expansion (litres):

45

Compressive strength (N/cm²):

4.5

Tensile strength (N/cm²):

7.5

Elongation at failure (%):

25

Density (kg/m³):

22

Shrinkage (after 24h at +20°C and 60% R.H.) (%):

1

Water absorption after 24 h (%):

1

Thermal conductivity at +20°C (DIN 52612) (W/m K):

0.039

Soundproofing capacity (EN 12354-3 or ISO 717-1) (dB):

58



MapePUR Universal Foam M is also hazardous for aquatic life. Do not dispose of these products in the environment. For further and complete information about the safe use of our product please refer to our latest version of the Material Safety Data sheet.

PRODUCT ONLY FOR PROFESSIONAL USE.

WARNING

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 from our website www.mapei.com

**All relevant references
for the product are available
upon request and from
www.mapei.com.au**

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