BITUMIX-AC methacrylate resin-based
  • 2-component
  • can be used at max. -10ºC
  • minimal shrinkage
  • self-compressing
  • solvent-free
  • working time 10 min.
  • hard elastic, tolerates traffic after 45 min.
  • frost- and road salt-resistant
  • waterproof
  • mineral oil-resistant
  • sea waterproof

Technical data
Grain size 0 – 1 mm
Layer thickness 3 – 100 mm
Mixing ratio
2.5 L hardener per 20 kg powder
Preparation time 10 minutes at 20ºC
Viscosity 1,000 - 2,000 mPas
Heat expansion 50x40-6 K-1
Compressive strength after 1 h approx. 30 N/mm²
Bending tensile strength after 1 h approx. 10 N/mm²
Tensile strength of asphalt > 1.5 N/mm²

The contact surfaces must be thoroughly cleaned, and they must be dry, rough and free of dust. Impurities must be removed. The adhesiveness of the surfaces must be 1.5 N/mm² on average. Mix Vergumix Bitulan AC thoroughly until it is a homogenous mass with the prescribed added hardening agent, either using an agitator mixer or a brick trowel for 2 minutes. The work must be carried out immediately after the mortar has been mixed. Mix only the amount to be used within the work period. Work in batches may only take place if the individual batches are made of freshly mixed materials within the work period (fresh on fresh). Bare mortar surfaces must be protected for at least 1 hour against the penetration of moisture.

Work environment:
Methyl alcohol is released during the work. Make sure there is sufficient aeration when working in enclosed areas. Working temperature from -10ºC to +35ºC

Storage life:
Store dry at > 10ºC and protect from direct sunlight. The storage life in unopened original packaging is 6 months.

Packaging:
Plastic tub with powder component in 25 kg paper sack and resin component in 200 L tin drum

Handling and processing of BITUMIX-AC (liquid mortar)
As regards the problem of odour in the handling of reactive resin made of methyl methacrylate, with professional processing of BITUMIX-AC, neither the person directly involved in the processing nor any uninvolved third persons are exposed to any health risk. BITUMIX-AC (liquid mortar) contains methyl methacrylate (hereafter called “MMA”):

Air quality tolerance limits:
50 ml/m³ (ppm) respectively 210 mg/m³ (= MAK value 50 ppm)

Odour threshold:
0.21 ppm (lower registration threshold) Short-term value category: =1= (i.e. the threshold concentration is not exceeded at any time)

Classification:
F  R 11 Highly flammable
Xi  R 36/37/38 Irritating to eyes, respiratory tract and skin
R 43 May cause sensitisation by skin contact.

The air quality tolerance (MAK value) describes the concentration of the substance in the air at which a worker’s (and involved third persons’) health is generally not affected; daily exposure of 8 hours is presumed. The MAK value is very easily established using a control tube provided by the company Draeger and which is designed to register the substance methyl methacrylate. This test shows that the relatively unpleasant, strong MMA odour is registered long before the air tolerance limit is reached, which means it cannot be considered a health risk in these circumstances.

The risk of exceeding tolerance limits arises, in particular, in cases where BITUMIX-AC is used in enclosed spaces. In such cases, suitable exhaust or ventilation equipment must be in place to ensure that existing emissions are released into the outdoors. If the air tolerance limits are exceeded in spite of the above, a mask must be used in accordance with the safety data sheet’s chapter 8 “In case of exceeded workplace-related threshold values...”.

Only when the air quality tolerance limit has been exceeded can there be a potential health risk. Our safety data sheets contain additional safety information, which we have enclosed. We know of no breaches of the air tolerance limit in open areas (e.g. at the mixing site), because there is adequate fresh air these places. This information concerns, in particular, use as floor covering with pure MMA reactive resin types. When reactive resin mortar of the type BITUMIX-AC is used, this cannot be compared to the floor coverings normally used for large spaces of more than several thousand square metres. Furthermore, methyl methacrylate is also used in tooth fillings or as bone cement for anchoring artificial joints. As this example indicates, there is no reason for concern when it involves a small area, such as when casting small plinths or when a few holes in the flooring need repair. During handling, there must be no unwrapped food items nearby which could be exposed to fumes. After hardening, the material is physiologically non-suspect, and has for many years been used for floor repairs and as coating in the food industry.