

Munkadur Classic – Technical Data Sheet

Munkadur Classic

Solvent-free Epoxy hot spraying coating for metal and concrete for use in the food sector

- Product**
- Solvent-free 2-components coating based on epoxy resin
 - Surface area processing in 2-components hot spraying process
 - Extremely durable, chemically resistant, and long-lasting
 - Physiologically harmless
 - Tested by experts according to EU and US guidelines (FDA)
- Areas of application**
- Internal coating for tanks and containers in the food industry
 - References for beer, wine, sparkling wine and mineral water
 - Proven for more than 30 years in daily use
- Product characteristics**
- Suitable for fat-free foods such as beer, wine, sparkling wine and mineral water; further foods upon request
 - Very good adhesion to steel, stainless steel, aluminum and mineral surfaces
 - Single coat application
 - Testing of coating for porousness with electro-conductive substrates
 - High degree of product and application safety since manufacturing and application are in one place

Product Data

- Colour**
- Base component: ochre yellow
Hardener component: dark brown
- Appearance**
- Dark brown, shiny, smooth, glassy surface
- Packaging**
- Base component: 12.5 liter UN bucket
Hardener component: 12.5 liter UN bucket
- Shelf life**
- Original buckets filled and unopened
2 years in a dry and cool storage area
- Coating-Suggestions**
- Steel, stainless steel, aluminum
- 1x Munkadur Classic
 - Average layer thickness: 500 – 700 µm
- Concrete
- Reprofiling and applying a sustainable coat made of physiologically harmless polymer mortar
- 1x Munkadur Classic
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Surface preparation

Steel

- Removal of welding beads, grinding down of welding seams and welding-seam overlaps
- Shot blasting according to SA 2 ½, free of dirt, grease and oil
Average surface roughness: Rz > 40 µm

Stainless steel/aluminum

- Clean and blast with a non-ferritic blasting abrasive
Average surface roughness: Rz > 40 µm

Concrete

- The surface to be coated must comply with technical building standards, be load bearing, solid, and free of bond-damaging substances
- The surface tensile strength should be at least 1.5 N/mm² on average and may not fall below 1.0 N/mm² with the smallest individual value
- Maximum residual moisture of 4 % according to CM-method
- After blasting, only physiologically harmless polymer-mortar adapted to the system may be used for reprofiling and creating a continuous base course

Technical Data

Material consumption

Approx. 1.5 kg/sq. meter (depending on the size of the container and ambient temperature)

Mixing ratio

1 : 1 (proportion of weight)
1.25: 1 (proportion of volume)

Resistance

Chemical influences

- For pure chemicals: see M+S Resistance List
- For cleaning and disinfection agents: see M+S Compatibility List

Mechanical influences

Hardness > 90 according to Buchholz

Temperature

40 °C water, higher temperatures and media after testing

Heat conductivity

0.25 kcal/m/h/°C or 2.9 W/cm x K at 10 °C

Munkadur surface roughness

Rz: 0.5 – 1 µm
Ra: 0.07 – 0.15 µm

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Processing Instructions/Conditions

Preparation of the material

Heat up bucket with base and hardener separated from each other to approx. 70 °C, homogenize and fill in 2-components hot spraying unit

Processing methods

Hot spraying

- With special 2-components hot spraying unit
- Undiluted
- Spray nozzle: 0.53 mm to 0.76 mm
- Temperature of base: 80 °C
- Temperature of hardener: 70 °C
- Temperature of tank wall: > 10 °C
- Relative humidity: max. 80 %
- Dew-point temperature must be at least 3 °C below the temperature subsurface of the to be coated

Smoothing over/painting

- Undiluted
- For small surface repair spots or improvements only,
See: Repair instructions for Munkadur Classic

Munkadur Classic must not be diluted!

Pot life

20 minutes at 18 °C

Curing time

- At a minimum of 18 °C after 7 days, surface will be resistant to mechanical stresses and chemicals
- Temperatures > 18 °C will not shorten the hardening

Waiting time between two operations

- Maximum of 2 hours at no more than 20 °C
- For longer intermediate hardening times, shot blasting the coating is necessary

Reworking

Solely with itself

Final drying time

- Fully resistant to mechanical stresses and chemicals after 7 days at a minimum of 18 °C
- Tanks/containers can be closed immediately after the coating work
- No fresh air supply is required for full cure

Advice for initial filling

Before their initial filling, newly coated tanks or containers are to be cleaned and, if necessary, disinfected in compliance with the M+S Compatibility List for cleaning and disinfection agents.

Data basis

All technical data, dimensions and information in this data sheet are based on laboratory results and measurements. Depending on different environmental parameters and influences that are beyond our area of influence, the actual data may vary.

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Exclusion of liability	The afore-mentioned information, especially the recommendations for processing and using our product, are based on our knowledge and experience in a normal case, provided that the product has been properly stored and used. Due to the varying subsurface materials and differing working conditions, a guarantee of work results or liability from any kind of legal relationship cannot be established from this information or from verbal consultation.
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