DESCRIPTION

SikaRoof® MTC-22 is a cold-applied, seamless, highly elastic and UV-stable moisture triggered polyurethane roof waterproofing system consisting of Sikalastic®-601 BC, Sika® Reemat Premium and Sikalastic®-621 TC.

USES

SikaRoof® MTC-22 may only be used by experienced professionals.
SikaRoof® MTC-22 can be used as following:
• Roof waterproofing solution for new construction and refurbishment projects
• For roofs displaying complex detail areas and geometry, even when accessibility is limited
• For cost efficient life cycle extension of failing roofs
• In combination with Sikalastic®-621 TC – SR (traffic white RAL 9016) for cool roofs and solar roofs

CHARACTERISTICS / ADVANTAGES

• Proven technology - over 25 year track record
• One component – no mixing, easy and ready to use
• UV resistant - Highly reflective (RAL9016) and resistant to yellowing
• Cold applied - requires no heat or flame
• Seamless roof waterproofing membrane
• Compatible with Sika® Reemat Premium - easy to detail
• Fast curing - free from resin damage almost immediately on application
• High elastic and crack-bridging - retains flexibility even at low temperatures
• High root resistance
• Easily re-coated when needed - no stripping required
• Good adhesion to most substrates- see primer chart
• Vapour permeable - allows substrate to breathe
• Strong resistance to common atmospheric chemicals

APPROVALS / STANDARDS

• Liquid applied roof waterproofing kit according to ETAG 005, ETA-09/0139 issued by technical assessment body British Board of Agrément (BBA), Declaration of Performance 75346978, provided with the CE marking
• Root resistance according to FLL
• External fire performance: B\text{Roof}(t1)
• Reaction to fire according to EN 13501-1: Euroclass E
PRODUCT INFORMATION

Packaging
Please refer to individual Product Data Sheet

Shelf Life
Please refer to individual Product Data Sheet

Storage Conditions
Please refer to individual Product Data Sheet

SYSTEM INFORMATION

System Structure
Sikalastic®-601 BC applied in 1 coat, reinforced with Sika® Reemat Premium and sealed with 2 coats Sikalastic®-621 TC

<table>
<thead>
<tr>
<th>Layer</th>
<th>Product</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Primer</td>
<td>please refer to substrate pre-treatment</td>
<td>≥ 1.0 l/m² (≥ 1.4 kg/m²)</td>
</tr>
<tr>
<td>2. Base coat</td>
<td>Sikalastic®-601 BC</td>
<td></td>
</tr>
<tr>
<td>3. Reinforcement</td>
<td>Sika® Reemat Premium</td>
<td>≥ 0.8 l/m² (≥ 1.15 kg/m²)</td>
</tr>
<tr>
<td>4. Top coat</td>
<td>Sikalastic®-621 TC</td>
<td>≥ 0.8 l/m² (≥ 1.15 kg/m²)</td>
</tr>
<tr>
<td>5. Top coat</td>
<td>Sikalastic®-621 TC</td>
<td></td>
</tr>
</tbody>
</table>

Note: These figures are theoretical and do not include for any additional material required due to surface porosity, surface profile, variations in level and wastage.

Composition
Moisture-triggered aliphatic polyurethane

Colour
Sikalastic®-601 BC: Oxide red (RAL 3011)
Sikalastic®-621 TC: Slate grey (RAL 7015), other colours available upon request

Dry film thickness
~2.2 mm

TECHNICAL INFORMATION

Tensile Strength
~11.0 N/mm² (EN ISO 527-3)

Elongation at Break
~84 % (EN ISO 527-3)

Tear Strength
~52 N/mm² (EN ISO 6383-1:2004)

Permeability to Water Vapour
μ: ~4 700 (EN ISO 1931 Method B)

Water Vapour Transmission
~3.8 g/m²/day (EN ISO 1931 Method B)

External Fire Performance
B_Roof (t1), B_Roof (t2), B_Roof (t3), B_Roof (t4) (EN 13501-5)

Reaction to Fire
Euroclass E (EN 13501-1)
### Chemical Resistance

<table>
<thead>
<tr>
<th>Method</th>
<th>Duration</th>
<th>Exposure Type</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt spray</td>
<td>1000 hours</td>
<td>Continuous exposure</td>
<td>(ASTM B117)</td>
</tr>
<tr>
<td>Prohesion testing</td>
<td>1000 hours</td>
<td>Cyclic exposure</td>
<td>(ASTM G85-94: Annex A5)</td>
</tr>
</tbody>
</table>

Strong resistance to a wide range of reagents including paraffin, petrol, fuel oil, white spirit, acid rain, detergents and moderate solutions of acids and alkalis. Some low molecular weight alcohols can soften the material. Contact Sika technical service for specific information.

### Solar Reflectance Index

<table>
<thead>
<tr>
<th>Index</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 109*</td>
<td>(ASTM 1980)</td>
</tr>
</tbody>
</table>

*All values refer to the initial (properly cured, non-weathered) status of Sikalastic®-621 TC white (RAL 9016).

### Service Temperature

-30 °C min. / +80 °C max.

### APPLICATION INFORMATION

#### Ambient Air Temperature

+5 °C min. / +35 °C max.

#### Relative Air Humidity

5 % r.h. min. / 85 % r.h. max.

#### Substrate Temperature

+5 °C min. / +60 °C max.
≥3 °C above dew point

#### Substrate Moisture Content

≤ 4 % pbw moisture content.
Test method: Sika®-Tramex meter
No rising moisture according to ASTM (Polyethylene-sheet).

#### Substrate Pre-Treatment

<table>
<thead>
<tr>
<th>Substrate Type</th>
<th>Primer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cementitious substrates</td>
<td>Sika® Concrete Primer or Sika® Bonding Primer</td>
</tr>
<tr>
<td>Brick &amp; Stone</td>
<td>Sika® Concrete Primer or Sika® Bonding Primer</td>
</tr>
<tr>
<td>Ceramic tiles (unglazed), and concrete slabs</td>
<td>Sika® Concrete Primer or Sika® Bonding Primer</td>
</tr>
<tr>
<td>Bituminous felt &amp; coating</td>
<td>Normally not required Sikalastic® Metal Primer*</td>
</tr>
<tr>
<td>Metals</td>
<td>Sikalastic® Metal Primer</td>
</tr>
<tr>
<td>Ferrous or galvanised metals, lead, copper,</td>
<td>Timber based roof decks require a complete layer of Sikalastic® Carrier.</td>
</tr>
<tr>
<td>aluminium, brass or stainless steel</td>
<td>For small exposed timber sections: Sika® Concrete Primer or Sika® Bonding Primer</td>
</tr>
<tr>
<td>Wooden substrates</td>
<td></td>
</tr>
<tr>
<td>Paints &amp; Coatings</td>
<td>Subject to adhesion and compatibility tests</td>
</tr>
<tr>
<td>Existing Sikalastic® MTC System</td>
<td>Sika® Reactivation Primer</td>
</tr>
<tr>
<td>Single ply membranes</td>
<td>Consult Sika Technical Department</td>
</tr>
</tbody>
</table>

*Sikalastic® Metal Primer prevents migration of bituminous volatiles and improves long-term reflectivity.

For the consumption rates and waiting time / overcoating you please refer to the PDS of the appropriate cleaner and primer. Other substrates must be tested for their compatibility. If in doubt, apply a test area first.

#### Waiting Time / Overcoating

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Minimum waiting time</th>
</tr>
</thead>
<tbody>
<tr>
<td>+5 °C / 50 % r.h.</td>
<td>18 hours</td>
</tr>
<tr>
<td>+10 °C / 50 % r.h.</td>
<td>8 hours</td>
</tr>
<tr>
<td>+20 °C / 50 % r.h.</td>
<td>6 hours</td>
</tr>
</tbody>
</table>

After four days the surface must be cleaned and primed with Sika® Reactivation Primer before continuing.
Note: Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.
APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The surface must be sound, of sufficient strength, clean, dry and free of dirt, oil, grease and other contamination. Depending on the material the substrate must be primed or mechanically cleaned. Grinding may be necessary to level the surface. Suitable substrates are such as: concrete, bituminous felts and coatings, metal, brickwork, asbestos cement, ceramic tiles, wooden substrates.

For detailed information regarding substrate preparation and primer chart please refer to Method Statement No. 850 94 01.

MIXING

Mixing is not required, however if the product is settled or separated on opening, stir gently but thoroughly in order to achieve a uniform colour. Stirring gently will minimise air entrainment.

APPLICATION

Prior the application of SikaRoof® MTC-22 the priming coat if used must have cured tack-free. For the Waiting Time / Overcoating please refer to the PDS of the appropriate primer. Damageable areas (handrails etc.) have to be protected with tape or plastic wrapping.

Please note, always begin with details prior to the installation of the horizontal surface.

1. Apply first coat of Sikalastic®-601 BC. Work only so far in advance that the material stays liquid
2. Roll in the Sikalastic® Reemat. Overlap the Reemat a minimum 5 cm and ensure overlaps are sufficiently wet to bond both layers. The roller may require only a little extra material to keep wetted but no further significant material needs to be added at this stage.
3. After the coat is dry enough to walk on, seal the roof area with a coat of Sikalastic®-621 TC.
4. For SikaRoof® MTC-22 a second coat of Sikalastic®-621 TC has to be applied.

CLEANING OF TOOLS

Clean all tools and application equipment with Thinner S immediately after use. Hardened and/or cured material can only be removed mechanically.

FURTHER DOCUMENTS

For detailed information regarding substrate preparation, primer chart and application method of SikaRoof® MTC-22 refer to Method Statement No. 850 94 01.
conditions in accordance with Sika’s recommenda-
tions. In practice, the differences in materials, sub-
strates and actual site conditions are such that no war-
ranty in respect of merchantability or of fitness for a 
particular purpose, nor any liability arising out of any 
legal relationship whatsoever, can be inferred either 
from this information, or from any written recom-
mandations, or from any other advice offered. The 
user of the product must test the product’s suitability 
for the intended application and purpose. Sika re-
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products. The proprietary rights of third parties must 
be observed. All orders are accepted subject to our 
current terms of sale and delivery. Users must always 
refer to the most recent issue of the local Product Data 
Sheet for the product concerned, copies of which will 
be supplied on request. It may be necessary to adapt 
the above disclaimer to specific local laws and regula-
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