Sika® Monotop®-612
Polymer Modified Repair Mortar

### Product Description
Sika® Monotop®-612 is a cementitious, silica fume containing, fibre reinforced, polymer modified, one-component, repair mortar.

### Uses
- Structural concrete repairs of all types of reinforced concrete structure
- Columns, beams and floors
- Marine structures and concrete bridges

### Characteristics / Advantages
- One component, it can be mixed with water only
- Adjustable consistency
- Excellent thixotropic behaviour, especially suitable for overhead and vertical applications
- Good mechanical strength values
- Excellent frost and deicing salt resistance
- Applicable in a layer up to 30 mm thickness
- Non corrosive, non-toxic
- Suitable for wet spray method
- Sulphate resistance

### Product Data

#### Form

<table>
<thead>
<tr>
<th>Appearance / Colours</th>
<th>Powder, grey</th>
</tr>
</thead>
</table>

#### Packaging

- 10 and 25 kg bags

#### Storage

| Storage Conditions / Shelf-Life | 6 months from date of production if stored in dry conditions protected from moisture and unopened original packing. |

#### Technical Data

<table>
<thead>
<tr>
<th>Chemical Base</th>
<th>Cement based grey powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>Powder: 1.54±0.05 kg/l, Fresh mortar: 2.10±0.10 kg/l</td>
</tr>
<tr>
<td>Layer Thickness</td>
<td>Min. 5 mm, Max. 30 mm</td>
</tr>
<tr>
<td></td>
<td>For thickness greater than 30 mm Sika MonoTop 612 must be applied in several layers</td>
</tr>
</tbody>
</table>
### Mechanical / Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressive Strength</td>
<td>(23°C and 60% relative humidity)</td>
</tr>
<tr>
<td></td>
<td>1 day; 10–25 N/mm²</td>
</tr>
<tr>
<td></td>
<td>28 days; 50–80 N/mm²</td>
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</tbody>
</table>

### System Information

**System Structure**

- Sika® MonoTop®–612 is a part of Sika® MonoTop®–600 ready to use repair mortar series.
- Sika® MonoTop®–610: Bonding bridge and anti-corrosion primer
- Sika® MonoTop®–612: Manually and mechanically applied repair mortar
- Sika® MonoTop®–620: Pore sealer and leveling mortar

### Application Details

**Consumption**

For one coat of 1 cm, 17–20 kg/m² powder material is required.

**Substrate Quality/Preparation**

- The concrete must be premoistened, structurally sound, clean and free from dust, dirt, oil, grease, loose or friable particles other contaminants(such as paint etc.).
- Sika MonoTop 610 bonding layer is applied by brush and then the mortar is applied wet on wet to the surface.

### Application Conditions/Limitations

**Substrate Temperature**

Min. +5°C max. +30°C.

**Air Temperature**

Min. +5°C max. +30°C.

### Application Instructions

**Mixing Ratio**

For 25 kg bag, 2.75–3.25 liter water must be used. Water/Powder ratio must be 0.11 – 0.13 by weight.

- Water/Powder = 1: 7.7–9.1 by weight
- Water/Powder = 1: 5.0–5.9 by volume

**Mixing**

Pour water in correct proportion into a suitable mixing vessel. Add powder, whilst stirring slowly. To avoid entraining too much air mix mechanically for at least 3 minutes, using low speed electric stirrer (max. 500 rpm) in order to maintain a homogeneous mortar.

**Application Method/Tools**

- Sika® Monotop®–612 can be applied by wet spray equipment such as Putzmeister, Melomat, Vario-Jet etc. The mortar can also be applied with spatula or trowel. The mortar is applied wet on wet to the Sika MonoTop–610 bonding layer. For thickness greater than 30 mm Sika MonoTop 612 must be applied in several layers. As soon as the mortar has started to set it can be smoothed by wooden or synthetic float or a styrofoam block. For very fine surface finish, the application of Sika® Monotop®–620 is advised.

**Cleaning of Tools**

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

**Potlife**

60 minutes, at 23°C

**Curing**

The mortar must be cured with suitable curing materials to prevent premature drying out of the mortar or standard curing methods are recommended. Keep it moist if exposed to strong sunshine or wind.

### Notes on Application/Limitations

- **n** Please do not use more water than advised.
- **n** Do not use the product below the allowed min. temperature so that the material completes the setting. The setting is slowed down under low temperatures and speeded up under high temperatures. Workability period also varies inversely depending on the temperature.

### Notes

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.
Local Restriction

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the product uses.

Health and Safety Information

Protective Measures
In any case show the physician the Safety Data Sheet. In case of irritation when dust is inhaled, provide for plenty of fresh air. After inhalation, in the event of symptoms take medical treatment. In case of contact with skin wash off immediately with soap and water. Consult a doctor if skin irritation persists. In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Summon a doctor immediately. After ingestion do not induce vomiting. Summon a doctor immediately. Avoid dust formation. Use breathing apparatus if exposed to vapours/dust/aerosol. Use personal protective clothing. Do not inhale dust. Take care for sufficient ventilation or exhaust on the workshop place. Use barrier skin cream, do not eat, drink or smoke during work time. Wash hands before breaks and after work. Use dust protection mask for respiratory protection, butyl rubber/nitrile rubber gloves for hand protection, safety glasses/face shield for eye protection and wear working clothes for body protection.

Ecology
Due to the high pH, aquatic organisms may be harmed. Don’t allow to enter waste water drain, waterways or soil. Once cured, the product will unlikely have any adverse effect on the environment.

Transportation Class
No dangerous goods.

Important Notes
Completely emptied packagings can be given for recycling. Packaging that cannot be cleaned should be disposed of as product waste. Keep away from food, beverages and animal feedstocks. Pick up the product mechanically.

Toxicity
In case of skin contact, sensitization/allergic reaction is possible and it may cause irritation. When contact with eyes, it may cause irritation and irreversible damage to eyes. In case of inhalation, it may cause irritation. When swallowed, may cause small amount of the product may cause significant health disorders.

Legal Notes
The information, and, in particular, the recommendations relating to the application and end-use of Sika® products, are given in good faith based on Sika’s current knowledge and experience of the products when properly stored, handled and applied under normal conditions. In practice, the differences in materials, substrates and actual site conditions are such that no warranty 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 recommendations, or from any other advice offered. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request.