Sikagard®-550 Elastic (NZ)
Crack bridging protective coating for concrete

**Positioning**

- Description: Sikagard®-550 Elastic (NZ) is a one part, plasto-elastic coating based on UV-curing acrylic dispersion with excellent crack-bridging properties even at temperatures below 0°C.

**Uses**

- Protection and enhancement of concrete structures (normal and lightweight concrete), especially exposed concrete surfaces with a risk of cracking
- In concrete repair works as an elastic protective top coating on Sika® MonoTop™ mortar repairs (refer to separate Sika MonoTop product data sheet)

**Advantages**

- Crack-bridging even at low temperatures (-20°C)
- High diffusion resistance against CO₂, reducing the rate of carbonation
- Water vapour permeable
- Very good resistance against weathering and ageing
- Can be diluted with water
- Environmentally friendly (solvent free)
- Reduced tendency to dirt pick up and contamination

**Product Data**

- **Appearance**: Thixotropic liquid.
- **Packaging**: 20 litre plastic pails
- **Storage/Shelf Life**: Twenty four (24) months from date of production if stored properly in undamaged and unopened original sealed packaging in cool and dry conditions. Protect from direct sunlight and frost.

**Technical Data**

- **Chemical Base**: Acrylate dispersion
- **Colours/Appearance**: Available in a wide range of colours which are made to order. Low semi-gloss finish.
- **Density**: ~ 1.3kg/l (at +20°C)
- **Solid Content by Volume**: ~ 50%
- **Solid Content by Weight**: ~ 65%

**Carbon Dioxide Diffusion Co-efficient (µCO₂)**

- Dry film thickness: d = 160 µm
- Equivalent air layer thickness: Sₐ, CO₂ = 51m
- Diffusion coefficient CO₂: µCO₂ = 3.1 x 10⁵
- Requirements for protection: Sₐ, CO₂ ≥ 50m

**Water Vapour Diffusion Coefficient (µH₂O)**

- Dry film thickness: d = 230 µm
- Equivalent air layer thickness: Sₐ, H₂O = 0.35m
- Diffusion coefficient H₂O: µH₂O = 1.5 x 10³
- Requirements for breathability: Sₐ, H₂O ≤ 5m

**Mechanical / Physical Properties**

- **Elongation at Break**: Elongation at break at +20°C (not exposed to weathering): 120%
  Elongation at break at -20°C: 70%

**Crack-Bridging Capacity**

- Class A1 (-20°C)

**Total min. recommended dry film build**: 200 microns (340 microns is required to achieve stated crack-bridging capacity).

**Application rate**: 4-5m²/litre/coat
| Minimum no. of coats | 2
| Rain resistance time | 10°C: 10 hours  15°C: 4 hours  20°C: 2 hours (@70-80% relative humidity)  4 hours (20°C, 75% R.H.)
| Primer | Sika Primer W or Sika Primer S. **Note:** For very difficult substrates (very dense or weak) and at low temperatures use Sika Primer S

### Application Details

#### Substrate Preparation
- New concrete should be 28 days old
- The substrate must be sound, dry and free from any dust or other surface contaminants such as oil, grease, chemicals rust, unsound existing coatings etc.
- Honeycombing or surface irregularities should be filled and flushed off with Sika® MonoTop®-723 N or Sika® MonoTop®-352 N to achieve a smooth and uniform surface.

#### Mixing
Sikagard®-550 Elastic (NZ) and the primers are ready to use but must be stirred thoroughly before application.

#### Application
- Sika Primer W or S may be applied by brush, roller or airless spray method. Provide adequate ventilation when using Sika Primer S, as it contains flammable solvents. Ensure that the primer penetrates completely into the substrate without forming a glaze on the surface.
- If two coats of primer are required, due to substrate porosity, allow 2 hours to dry between coats – depending on temperature and air movement.
- The primer should be completely dry (at least 4 hours at 20°C) before overcoating with Sikagard®-550 Elastic (NZ).
- Apply the Sikagard®-550 Elastic (NZ) using either a brush, roller or airless spray equipment (see Important Notes) to achieve a uniform and even coating thickness.
- Waiting time between coating applications is approximately 8 hours at 20°C. At lower temperatures this time will be delayed.

#### Cleaning
- For Sika Primer S use Sika Thinner C to clean brushes and equipment.
- For Sikagard®-550 elastic (NZ) and Sika Primer W use water to clean brushes and equipment.

#### Important Notes
- Sikagard®-550 Elastic (NZ) is resistant to normal aggressive atmospheric pollutants however owing to its elastic nature slight surface contamination may occur, particularly on horizontal surfaces.
- If applying Sikagard®-550 Elastic (NZ) over existing coatings the surface must be thoroughly clean and sound. Adhesion and compatibility tests should be carried out first to determine the suitability of using Sikagard®-550 Elastic (NZ).
- Sika MonoTop repair systems should be allowed to dry for at least 48 hours before applying Sikagard®-550 Elastic (NZ).
- Application rates for Sika Primer S or W and Sikagard®-550 Elastic (NZ) may vary depending on the surface texture of the substrate, the method of application and the coating thickness.
- The primer coat must be thoroughly dry before overcoating.
- Remove all concrete cure or release materials prior to coating.

### 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.

### Transportation Class
Sikagard®-550 Elastic (NZ) is classified as non hazardous.

#### Important Notes
- Residues of material must be removed according to local regulations. Fully cured material can be disposed of as household waste under agreement with the responsible local authorities.
- Detailed health and safety information as well as detailed precautionary measures e.g. physical, toxicological and ecological data can be obtained from the safety data sheet.

### 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 accordance with Sika's recommendations. 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 user of the product must test the product’s suitability for the intended application and purpose. Sika reserves the right to change the properties of its 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.