# WACKER SILICONES

### SILRES®

# Silres<sup>®</sup> BS 7090

SILICONE WATER REPELLENTS

### **Product description**

Silres<sup>®</sup> BS 7090 is a water less self- emulsifying siloxane system. The fluid is unique to retain the same efficiency of the product till its valid shelf-life. While stirring with water, Silres<sup>®</sup> BS 7090 produces stable emulsion which is using for reducing water uptake and producing visual beading while not blocking pores or capillaries of concrete substrates.

Silres<sup>®</sup> BS 7090 is found to be particularly effective in applications that require beading and water uptake prevention at very low addition levels.

#### **Properties**

Silres<sup>®</sup> BS 7090 is a self- emulsifying alkylsilane mixture that forms emulsion instantaneously when mixed with water. Emulsion of Silres<sup>®</sup> BS 7090 reacts immediately after mixing with cementitious materials and starts intermolecular crosslinking within alkyl silanes and converts to water repellent silicone resin.

Some components of the product freeze at low temperature ( $\leq 25^{\circ}$ C) and may settle. So, it is recommended to stir the container well before use.

### **Special features**

- Excellent water repellency- reducing cracking, spalling, freeze/ thaw damage, chemical degradation, efflorescence & dirt pick-up
- Excellent beading for improved aesthetics
- Low VOC emissions during curing
- Facilitate higher water vapor permeability
- Minimal effect on adhesion of topcoats to the mineral substrate,
- UV- resistant, lengthens substrate life, reducing maintenance costs

#### Application

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Admixture for low-load bearing cementitious products such as precast products, blocks and pavers. Impregnating sealer for posttreatment of cementitious surfaces.

#### Processing

Silres<sup>®</sup> BS 7090 needs to dilute with water before use. When diluted with water Silres<sup>®</sup> BS 7090 produces emulsion after mixing. 1:1 dilution with water followed by mixing is recommended for pre-cast and 1:9 dilution followed by mixing (1-part Silres<sup>®</sup> BS 7090 & 9 part water) is desired for post treatment. Emulsion concentration can vary according to customer needs and diluted emulsions are stable in wide range of concentrations. For safety, it is always advisable to recheck the emulsion stability in lab before going to larger volume dilution. If the emulsion shows insufficient stability, then use periodic stirring/ agitation during its application. We recommend the product quantity (Silres<sup>®</sup> BS 7090) should be 0.05- 0.1% by weight of cement for precast products.

### Storage

The 'Best use before end' date of each batch is shown on the product label.

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

#### Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries.

| Silles® BS 7090                                   |        |                        |
|---|--------|------------------------|
| Appearance@ 30°C                                  | Visual | Colorless clear liquid |
| Viscosity dynamic @ 30°C (LVT, Spindle 1, 60 rpm) | mPa.s  | approx. 5- 15          |
| Density at 30°C                                   | gm /cc | approx. 0.91           |
| Water Miscibility                                 |        | Dispersible            |

Technical data sheet for SILRES BS 7090 / Version: 1.0 / Date of last alteration: 11.11.2019

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The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose.

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