

# Technical Data Sheet

## SCHQ50

### Description of the material

SCHQ50 is a mineral casting mixture consisting of a basis of epoxy resin and a high amount of quartzite-based stone. It has good processing properties when utilised in conjunction with cold casting methods. When used, it is durable, non-corrosive, chemically inert, resists most chemicals, and can be disposed of at a conventional waste facility.

### Characteristics

- Very low wall thicknesses possible
- Good compactability
- Good damping characteristics
- Low thermal conductivity

### Material properties

- Density typ. 2.20 kg/dm<sup>3</sup>
- Modulus of elasticity typ. 30 kN/mm<sup>2</sup> (27-32 kN/mm<sup>2</sup>)
- Compressive strength typ. 110 N/mm<sup>2</sup> (>80 N/mm<sup>2</sup>)
- Tensile strength typ. 17 N/mm<sup>2</sup> (>13 N/mm<sup>2</sup>)
- Poisson's ratio typ. 0.2
- Damping ratio typ. 0.6%
- Therm. expansion coefficient typ. 19\*10<sup>-6</sup> K<sup>-1</sup> at 20°C
- Heat conductivity typ. 3 W/m K at 20°C
- Spec. thermal capacity typ. 0.9 kJ/kg K at 20°C
- Linear shrinkage typ. 0.3 mm/meter
- Component thickness typ. 20 mm
- Maximum grain size typ. 4 mm

### Area of application

Suitable for thin-walled machine components such as stands and machine frames when utilised in conjunction with small casting methods. Thin-walled welded constructions can be filled in order to increase rigidity.

### Comment

The material recommendations are based on the experience of many years and correspond to the present state of knowledge. Suitability tests are the responsibility of the customer and cannot not be assumed by the vendor.

### Material qualification

The material properties were compiled in co-operation with inspire AG and institutes of the ETH Zurich and the examinations were carried out by authorized laboratories.

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### Revision notice

Issue	Name	Author – date/initials	Checked	Approval
01	First issue	13.05.2010/QSU	01.06.2012 / HLA	26.05.2010 / HLA