

Silicon Carbide Block Heat Exchanger

Solid Blocks made of Silicone Carbide from Ø100 to Ø300 mm



Wilk-Graphite Block heat exchanger are made of pure directly sintered SIC blocks, and do not contain free Silicone, which may reduce the chemical resistance.

SIC offers a nearly universal chemical resistance, highest thermal conductivity. Extreme surface hardness allows protection against abrasion and results in high flow rates with increased thermal efficiency.

High Reliability

- Zero O-Ring gasket
- Long lasting blocks
- Easy proven design

SIC Key physical properties

- Roughness < 0,8 µm
- Density: 3,12 g/cm³
- Thermal conductivity (20°C): 130 W/mK
- Tensile strength: 210 Mpa
- Vickers Hardness: 19,2 GPa

High purity application

- Pure Sintered Silicon Carbide
- No open porosity → No impregnation
- Helium leakproof (10⁻⁷ SI)
- FDA compliant

Range of application

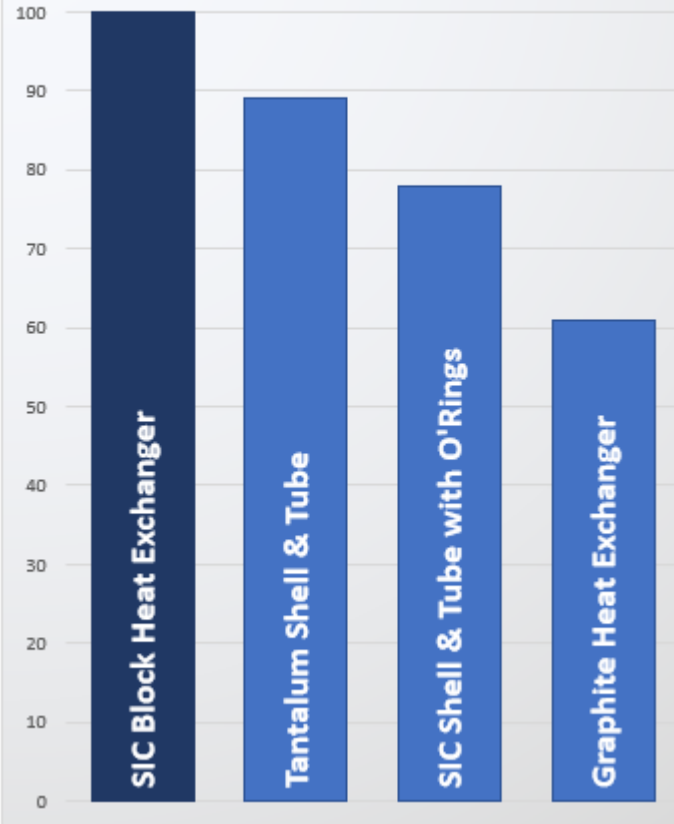
- Universal chemical resistance
- No abrasion
- Hole diameter from 8 to 16 mm
- Pressure : FV/16 barg
- Temperature: - 60 to + 500 °C
- Design according ASME, PED and GB

Low total cost of ownership

- Easy maintenance
- Standard blocks
- No piping modifications required
- Self-cleaning holes
- Low fouling
- Quick return on investment



Thermal Efficiency (Higher is better)



Thermal efficiency

The thermal efficiency result is an average based on more than 500 different applications with 6 main heat exchanger types listed below.

Heat exchanger type:

- Cooler
- Heater
- Interchanger
- Condenser with and without inerts
- Flash evaporator
- Thermosiphon

