



Material data sheet for sand moulds

MOULDING MATERIAL

| Moulding material | Silica sand | | | | Kerphalit |
|---|---|--|------------------------------|---------------------------------------|---|
| Type | GS 09 | GS 14 | GS 19 | GS 25 | Kerphalit |
| Medium grain size (μm) | 90 | 140 | 190 | 250 | 200 |
| Application | Moulds and cores with very high requirements on the surface | Moulds and cores with high requirements on the surface | Cores; high gas permeability | Cores with very high gas permeability | High thermal resistance, against sand extension defects; resistance against penetration |
| Binder content (weight -%) | 1.9 – 2.1 | 0.9 – 1.2 | 0.9 – 1.2 | 0.9 – 1.2 | 1.0 – 1.3 |
| Loss on ignition (weight -%) | 2.5 | 1.6 – 1.9 | 1.5 – 1.8 | 1.5 – 1.8 | 1.6 – 1.9 |
| Layer thickness (μm) | 200 / 250 | 300 | 300 / 400 / 500 | 300 | 300 |
| Bending strength (N/cm^2) | 210 – 230 | 220 - 350 | 280 – 380 | 280 – 380 | 220 – 320 |
| Gas permeability (l/h) | 22 | 65 / 75 | 140 | 250 | 250 |
| Binder | Furane resin | | | | |

TECHNICAL DATA

| | |
|------------------|---|
| Max. size | 4000 x 2000 x 1000 mm |
| Moulding sand | Silica sand of different grain size |
| Binder-type | cold hardening furan resin |
| Binder-content | adjustable between 0.9 – 2.1 weight % |
| Layer thickness | 200 – 400 μm ; standard 300 μm |
| Resolution | approx. 200 μm (dependent on sand used) |
| Accuracy | 0.2 % (min. +/- layer thickness) |
| Bending strength | 210 – 380 N/cm^2 (dependent on sand and respectively binder used) |

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