



Material data sheet for Furan-Direct-Binding (FDB) sand molds

MOLDING MATERIALS

Molding material	Silica sand			Cerabeads
Type	GS 14	GS 19	GS 25	Cerabeads
Medium grain size (µm)	140	190	250	200
Application	Molds and cores with high surface requirements	Cores with highest gas permeability	Cores with highest gas permeability	High thermal resistance, low thermal extension, good packaging, good strength and surface, alternative to Chromite, Kerphalite or Zircon
Loss on ignition (weight %)	≤ 1.9	≤ 1.9	≤ 1.9	≤ 1.5
Layer thickness (µm)	300	300/400	300	300
Bending strength (N/cm ²)	≥ 220	≥ 220	≥ 250	≥ 300
Gas permeability	≥ 80	≥ 180	≥ 300	≥ 150

TECHNICAL DATA FOR SAND MOLDS

Build platform	4,000x2,000x1,000 mm
Molding material	Silica sand of different grain size
Binder-type	Cold hardening furan resin
Binder-content	adjustable, standard 1,2 %
Layer thickness	300–400 µm; standard 300 µm
Accuracy	± 0,1 % (min. ± 1,5* layer thickness)
Bending strength	From 220 N/cm ² (depending on sand and/or binder used)