

ALUMINUM CAST-HOUSE/FURNACES

Miscellaneous tooling - SAMPLING CRUCIBLE



Description:

RODABELL's sampling crucibles have been specifically developed to facilitate the molten Aluminum sampling taker process within the casting process.

Our sampling crucibles are built in two parts. The handle, and the refractory based crucible. The handle is fabricated out of steel and could have variable length. The crucible is made from machined calcium silicate. Our machining process has been developed jointly with our customers and raw material providers in order to achieve the best quality in the final product.

We use a broad range of materials to produce our calcium silicate machined parts. The material may vary according to each customer's casting parameters.

RODABELL'S engineering department is able to develop detailed drawings and machining implementation for any sampling crucible that we do not have in our product range.



Application:

Sampling taker crucible for Aluminum testing purposes.

Advantages:

- Great mechanical resistance that provides an extended lifetime.
- High thermal shock resistance
- No preheating necessary
- Easy to clean

Mechanical properties

	Units	CM-MO	CM-N14	CM-N17	CM-CA15	CM-CA35
Bulk density	kg/m ³	850	848	817	1040	1050
Flexural strength	MPa	8	8.8	8	10	13
Compression strength	MPa	15	17	16	20	28
Hardness	Mpa	60	60	60	66	70

Thermal properties

	Units	CM-MO	CM-N14	CM-N17	CM-CA15	CM-CA35
Service temperature	°C	850	850	850	1000	1000
Thermal conductivity	W/mK	0,26 (750°)	0,201 (700°)	0,201 (700°)	0,29 (600°)	0,29 (600°)
Loss on ignition	%	3,1	8	8	2-2,5	2-2,5
Shrinkage	%	0,1/0,4	0,25/1,10	0,2/1,36	0,12/0,7	0,3/1,5
Coef. Termal expansion	K ⁻¹	6,1*10 ⁻⁶ /K	7*10 ⁻⁶ /°C	7*10 ⁻⁶ /°C	5,0*10 ⁻⁵ /K	5,9*10 ⁻⁵ /K