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CATALYST SUPPORTS

CERNIT CBS 23 ceramic inert balls



CERNIT inert balls

Ceramic inert balls for supporting and protecting catalyst beds.

Product	CERNIT CBS 23
Family	Catalyst supports
Available sizes	1/8" to 2"
Max. application temperature	1,000 °C

Operating data

Nominal size	Diameter (mm)	Crush strength (kN/particle)
1/8"	3-5	> 0.35
1/4"	6-8	> 0.60
3/8"	9-11	> 0.85
1/2"	11-14	> 1.85
5/8"	15-17	> 3.55
3/4"	19-21	> 4.87
1"	23-28	> 8.5
1 1/2"	35-42	> 12
2"	50-55	> 56

Chemical composition

Component	CERNIT CBS 23
$SiO_2 + Al_2O_3$	> 93 %
SiO_2	68-73 %
Al_2O_3	21-26 %
MgO	< 0.5 %
Fe_2O_3	< 1 %
$K_2O + Na_2O + CaO$	< 4 %
Fe_2O_3 (leachable)	< 0.1 %

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Physical figures

Property	Unit	CERNIT CBS 23
Particle density	g/cm³	2.3-2.4
Bulk density (for average particle density)	kg/m³	1,320-1,450
Free space	%	40
Water absorption	weight-%	< 0.5
Spalling resistance	°C	300
Acid resistance	%	> 99.6
Modulus of elasticity	N/mm²	4,000-6,000
Hardness (Mohs scale)		> 6.5
Specific heat	kJ/kg.°C	0.84
Thermal conductivity	kJ/m.h.°C	6.3
Thermal expansion	1/°C	4.7×10^{-6}
Attrition loss	%	<< 1
Max. application temperature	°C	1,000
Sphericity (dmax/dmin)		< 1.25

Tolerances: the customary permissible tolerances for ceramic products apply. A random sample is considered to comply with the tolerances if at least 90% of the individual items in a batch satisfy the required conditions.

Subject to technical modification. All data represent provisional information only. No claim based on these data will be entertained.