

DIDURIT B83-6-DE

General information	
Classification	Refractory concrete (LCC) DIN EN ISO 1927-1
Main raw material components	Bauxite
Bonding type	Hydraulic
Additional Information	high abrasion resistance, high resistance to thermal shocks
Grain Size	0-6 mm
VDEh-Code	001803802770
Working method	Vibrating
Amount of Material without loss	2,85 t/m ³ / 177,9 lb/ft ³
Amount of liquid addition	5,0-6,0 l/100 kg
Liquid addition	Water
Storage Limit	8 months
Temp. limit for application	1.700 °C / 3092 °F

Environmental indicators			
Product Carbon Footprint	0,924	[t CO2e/t prod.]	ISO 14067
The Carbon Footprint of the Product (CFP) has been calculated following the principles of ISO 14067.			

Chemical analysis					
Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	TiO ₂	K ₂ O	CaO
82,5%	12,0%	1,2%	2,6%	0,1%	1,1%
Determination on fired substance (1025 °C / 1877 °F) acc. to ISO 12677					

Physical properties						
Bulk Density	110 °C / 230 °F	2,85	[g/cm ³]	177,9	[lb/ft ³]	ISO 1927-6
	1000 °C / 1832 °F	2,80	[g/cm ³]	174,8	[lb/ft ³]	ISO 1927-6
Cold Crushing Strength	110 °C / 230 °F	70,0	[N/mm ²]	10152,6	[lbf/in ²]	ISO 1927-6
	1000 °C / 1832 °F	140,0	[N/mm ²]	20305,3	[lbf/in ²]	ISO 1927-6
	1500 °C / 2732 °F	120,0	[N/mm ²]	17404,5	[lbf/in ²]	ISO 1927-6

The indicated values are standard values, i.e. values taken over a longer representative period of time according to either valid test standards or internal test methods. They may not be regarded as committed specifications and therefore not as guaranteed properties. We reserve the right to further technical developments and new editions of technical product information.

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Modulus of Rupture (110 °C / 230 °F)		8,0	[N/mm ²]	1160,3	[lbf/in ²]	ISO 1927-6
Thermal Expansion (1000 °C / 1832 °F)		0,60	[%]	0,60	[%]	EN 993-19
PLC (1000 °C / 1832 °F)		-0,10	[%]	-0,10	[%]	ISO 1927-6
Abrasion		5,00	[cm ³]	5,00	[cm ³]	ASTM C704 calibrated
Thermal Conductivity	400 °C / 752 °F	1,90	[W/mK]	13,2	[Btu in/h ft ² °F]	Dr. Klasse
	600 °C / 1112 °F	1,80	[W/mK]	12,5	[Btu in/h ft ² °F]	Dr. Klasse
	800 °C / 1472 °F	1,80	[W/mK]	12,5	[Btu in/h ft ² °F]	Dr. Klasse
	1000 °C / 1832 °F	2,00	[W/mK]	13,9	[Btu in/h ft ² °F]	Dr. Klasse
	1200 °C / 2192 °F	2,10	[W/mK]	14,6	[Btu in/h ft ² °F]	Dr. Klasse
The indicated values constitute converted values, which were measured in accordance with ISO standards.						

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