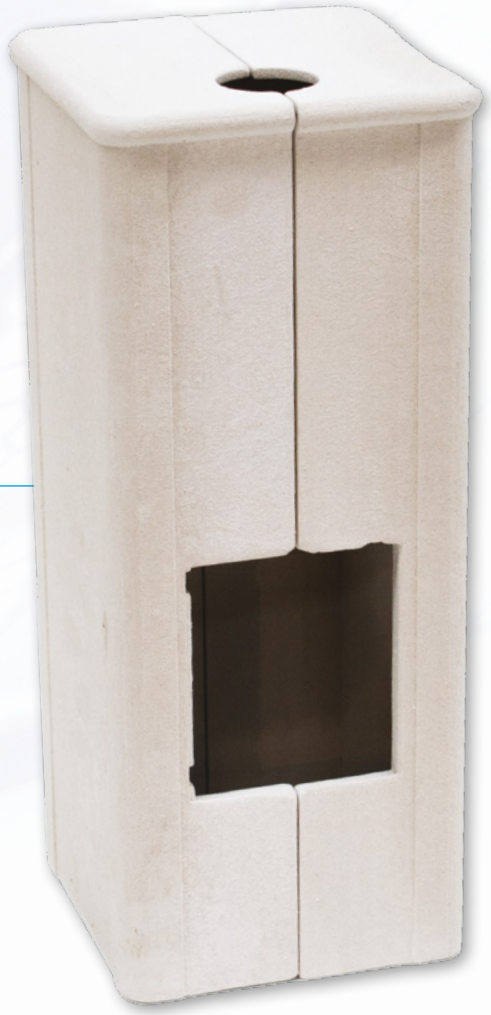


CONCR3DE
YOUR 3D POWDERHOUSE

CONCR3DE REFRACTORY CEMENT

Material Data Sheet

CONCR3DE.COM

CONCR3DE REFRACTORY CEMENT

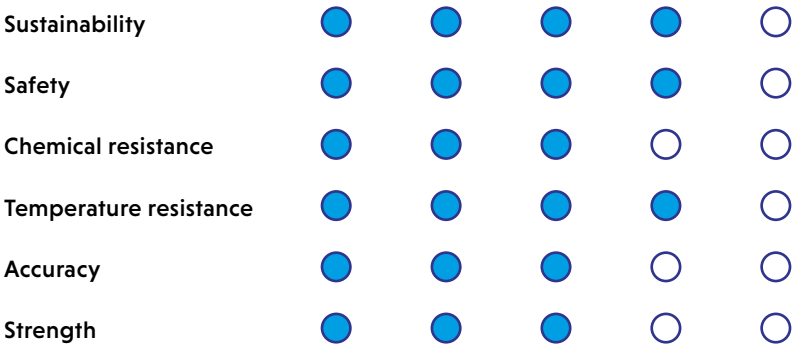
CONCR3DE
YOUR 3D POWDERHOUSE

General properties

CONCR3DE Refractory Cement is a Plug-and-Play material option for refractory applications. This highly heat-resistant material enables 3D printing of very large oven linings. It combines our calcium alumina-based refractory powder with an aqueous binder to create complex parts with a high accuracy. Refractory Cement is cost-effective material option, highly suitable for both firebox as well as glazed application options. The benefits of 3D printing Refractory Cement are numerous and include the ability to create what used to be multi-part designs in a single print, saving time, effort and costs, as well as the flexibility to quickly print several different designs. Our CONCR3DE 3D printer range enables conveniently printing CONCR3DE Refractory Cement in a size that fits your specific application.

Material benefits

This material has a number of advantages over alternative refractory materials.



Printer compatibility

This material can be printed using our Armadillo Gray, Elephant Gray and Armadillo White 3D printers. Are you looking for even larger hardware options? Contact our team to learn more.

Material properties

The material properties are the standard properties used for stone-like materials for outdoor and indoor applications. All the properties are calculated after 28 days curing in water.

CHEMICAL COMPOSITION	
Al_2O_3	43 %
SiO_2	37 %
CaO	9 %
MgO	8 %

MECHANICAL PROPERTIES	STANDARD	ARMADILLO GRAY/ELEPHANT GRAY
Cold crushing strength	EN 14617-15	13 MPa at 1.000 °C
Modulus of rupture	EN 14617-2	3 MPa

OTHER PROPERTIES	STANDARD	ARMADILLO GRAY/ELEPHANT GRAY
Density	EN 14617-1	1.500 kg/m^3

Notes

- Composition and mechanical properties may vary depending on the equipment used for sintering and debinding.
- Final material performances of 3D-printed objects are impacted by certain factors, including but not limited to part geometry and design, application, environment and more.
- Final 3D-printed objects are produced using certified CONCR3DE consumables. Use of alternate powders and binders compromise the mechanical properties.

CONCR3DE
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