CONCR3DE
YOUR 3D POWDERHOUSE

# CONCR3DE LIMESTONE

Material Data Sheet

CONCR3DE.COM

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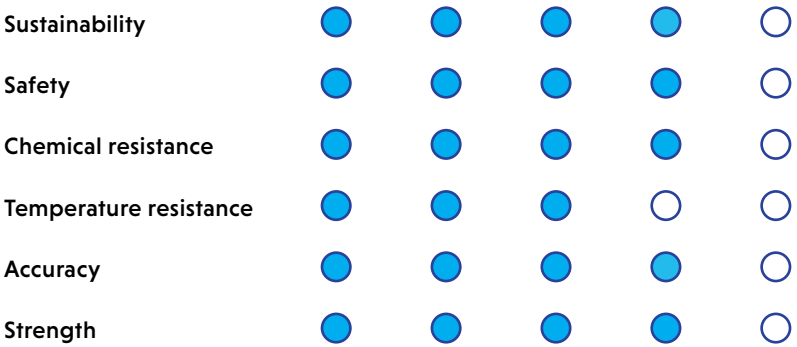
## General properties

CONCR3DE Limestone is a stone-like material option that combines excellent mechanical properties with the ability to print highly accurate large designs suitable for outdoor use. This sustainable material is based on natural Limestone dust and our aqueous binder, upcycling a former waste stream. Common uses for CONCR3DE Limestone include interior design, architecture and restoration applications. Our range of 3D printers enables printing CONCR3DE Limestone cost-effectively on a very large scale. This stone-like material is resistant to atmospheric agents and has strength and mechanical properties comparable to natural stone. The material can be used for both outdoor and indoor applications. Several optional coatings and sealers can be applied to increase the impact resistance and durability.

## Material benefits

This material has a number of advantages over alternative stone-based 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 | |
|---|---|
| $Al_2O_3$ | 28 % |
| $SiO_2$ | 60 % |
| CaO | 11 % |

| Mechanical properties | Standard | Armadillo Gray/Elephant Gray |
|---|---|---|
| Compressive strength | EN 14617-15 | 12 - 31 MPa |
| Flexural strength | EN 14617-2 | 3 - 6 MPa |

| Other properties | Standard | Armadillo Gray/Elephant Gray |
|---|---|---|
| Density | EN 14617-1 | 1.650 kg/m$^3$ |
| Open porosity | EN1936:2006 | 30 % |
| Accuracy | N/A | 0,5 mm*m |
| Chemical resistance | EN 14617-10 | C4 |
| Dimensional stability | EN 14617-12 | Class A (< 0,3 mm) |
| Fire class | EN 13501-1 | A3fl-S1 |

## 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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SBJ_v1_Marble_230µm • 04-10-2023