

DURSiC

THE ULTIMATE SOLUTION AGAINST ABRASION

DURSiC® is part of our range of technical ceramics and represents the pinnacle of wear resistance due to its multiple properties.

Dursic Solution

Invulnerable

Its unparalleled abrasion resistance on the market, combined with complete chemical stability in the most aggressive environments, makes DURSiC® the ultimate solution for insoluble challenges. The hardness of DURSiC® speaks for itself, with diamond being its only weakness.

Insensitive

Our products made from DURSiC can be used over a wide temperature range, up to 1400°C in air while maintaining optimal properties, and even exceeding 1600°C in inert atmospheres. DURSiC also exhibits good thermal conductivity and has a low coefficient of thermal expansion, making it exceptionally resistant to thermal shock.

Incorruptible

Not only does DURSiC's very low porosity make it impermeable to fluids and gases, but its specific atomic structure also provides excellent resistance to corrosive agents, including acids (such as hydrochloric, sulfuric, and hydrofluoric acids) and bases (such as potassium hydroxide and caustic soda). Combined with its mechanical and thermal properties, DURSiC is well-suited for challenging environments.

Adaptability

The manufacturing process of DURSiC allows for the easy production of complex parts, suitable for coating industrial components used across various fields of activity.



BUSINESS SECTORS

Chemical industries, food industries, mining and quarries, cement plants, etc.

EQUIPMENT

Chutes, hoppers, cyclones / hydrocyclones, piping, etc.

EXAMPLES OF PARTS

Pipes, elbows, cones, slabs, tees, Ys, nozzles, etc.

Q DURSiC on the Mohs scale

With a resistance of 9.5 on the Mohs scale, this technical ceramic is somewhere between Corundum and Diamond.

DURSiC®

	Talcum powder (under the nail)
	Gypsum (can be scratched with a fingernail)
	Calcite (rayable avec une pièce cuivrée)
	Fluorite (can be scratched with a knife)
	Apatite (can be scratched with a knife)
	Orthoclase (fileable / sandable)
	Quartz (scratches glass)
	Topaz (scratchable with tungsten carbide)
	Corundum (scratchable with silicon carbide)
	Diamond (can be scratched by another diamond)

SOME TECHNICAL DETAILS

Physical properties	
Composition	91% (SiC), 9% (Si)
Density	3.02 g/cm ³
Porosity	<0.1%
Mechanical properties	
Hardness	9.5 (Mohs scale)
Modulus of elasticity	330 MPa
Compressive strength	(20°C/1200°C) >2000 MPa
Abrasion resistance	Greater than that of ALDUR 240*
Thermal properties	
Effective temperature resistance	1400°C
Maximum operating temperature	about 1600°C
Thermal conductivity	45 W/m.k (1200°C)
Coefficient de dilatation thermique	4.5x10 ⁻⁶ K ⁻¹ (1200°C)

*See data sheet

