

NANOSTRUCTURED CERAMIC MATERIALS

Areas of Application

Nozzles and cutting-tool cartridges for mechanical engineering, chemical and petrochemical industries; medical implant blanks

Specification

Materials for cutting-tool cartridges, nozzles	$\text{Al}_2\text{O}_3(95\%), \text{B}_4\text{C}$
Materials for implant blanks	Y-TZP
Bending strength, MPa	
$\text{Al}_2\text{O}_3(95\%)$	≤550
B_4C	≤450
Y-TZP	≤1300



Nozzles of Al_2O_3

Advantages

Nozzles and cutting-tool cartridges: high wear resistance, chemical stability, heat resistance. Medical implant blanks: bioinertness, high hardness and wear resistance, corrosion resistance



Nozzle of B_4C

Stage of Development. Suggestions for Commercialization

IRL6, TRL6
Manufactured, upon request



Medical implant blanks

IPR Protection

IPR1

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