

## TITANIUM GRADE 2

### GENERAL INFORMATION

COMMERCIALY PURE TITANIUM GRADE 2 IS A GOOD COMBINATION BETWEEN PURITY AND MECHANICAL PROPERTIES, AND IS ONE OF THE MOST USED THROUGH INDUSTRY. IT SHARES WITH GRADE 1 TITANIUM QUALITIES LIKE CORROSION RESISTANCE, WELDABILITY, DUCTILITY AND FORMABILITY. THIS MATERIAL IS A PERFECT CHOICE FOR MEDIAL INDUSTRY, CHEMICAL PROCESSING, AND MARINE INDUSTRY.

DENSITY 4.45 KG/DM<sup>3</sup>



BIO-COMPATIBILITY HIGHEST



MACHINABILITY EXCELLENT



WELDABILITY VERY GOOD



CORROSION RESISTANCE VERY GOOD



## CHEMICAL COMPOSITION (ACCORDING TO SUPPLIER)

Ti	C	O	H	N	Ni	FE
BALANCE	0.01 %	0.14 %	0.024 %	0.046 %	0.08 %	0.01 %

## MECHANICAL PROPERTIES

YIELD STRENGTH <sup>1</sup>	UP TO 630 MPA
TENSILE STRENGTH <sup>1</sup>	UP TO 760 MPA
ELONGATION A <sup>1</sup>	25 %
NECKING Z <sup>1</sup>	60 %
YOUNG'S MODULUS <sup>1</sup>	106 GPa
HARDNESS <sup>2</sup>	220 HV
RELATIVE DENSITY <sup>3</sup>	OVER 99.95 %

<sup>1</sup> TESTED ACCORDING TO EN 6892-1:2009

<sup>2</sup> MEASURED ACCORDING TO EN ISO 6507-1

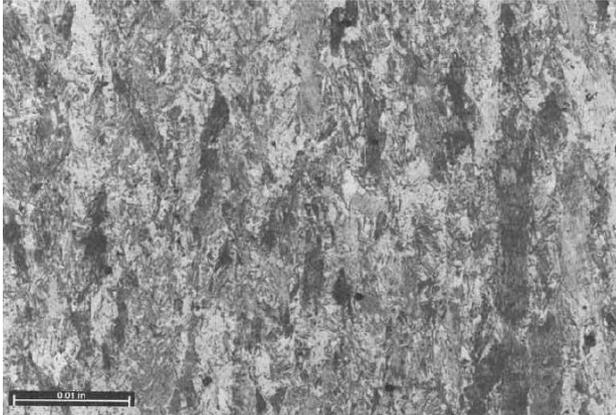
<sup>3</sup> MEASURED ACCORDING TO ASTM E1245

## SURFACE QUALITY

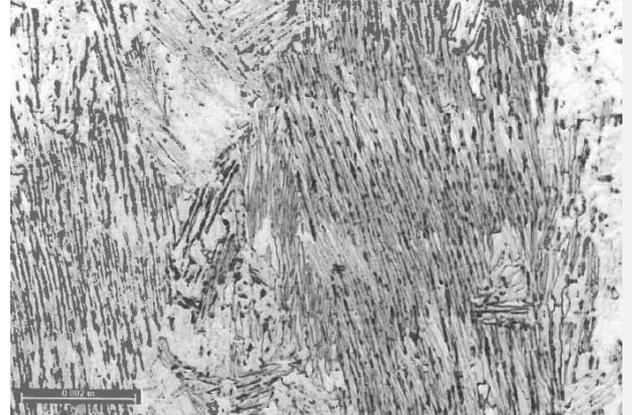
RA	7.5 μM
RZ	42 μM

MEASURED IN COMPLIANCE WITH ISO 4287-1997. RESULTS STRONGLY DEPEND ON SAMPLE GEOMETRICAL COMPLEXITY AND ORIENTATION

## MICROSTRUCTURE (ACCORDING TO ASTM E112)



MAGNIFICATION: 15x



MAGNIFICATION: 75x

## NOTES

ALL THE VALUES IN THIS DOCUMENT REFER TO A COMBINATION OF GEOMETRIES, POWDERS AND PARAMETERS DEVELOPED BY SISMA, THEREFORE THEY MUST BE INTENDED FOR INFORMATION ONLY. INFORMATIONS WRITTEN IN THIS FORM ARE SUBJECTED TO SUDDEN MODIFICATION WITHOUT PRIOR NOTICE, AND DO NOT GRANT FINAL RESULT.