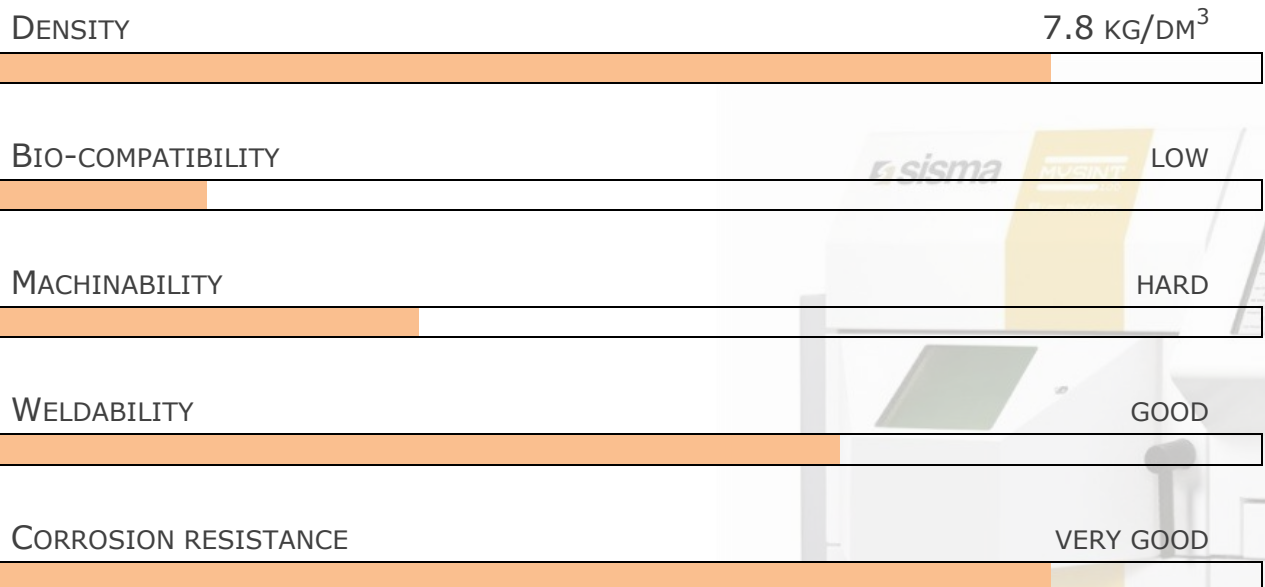


1.4542 STEEL

GENERAL INFORMATION

1.4542 STEEL, ALSO KNOWN AS 17-4 PRECIPITATION HARDENING, IS A STAINLESS STEEL THAT FEATURES A GOOD BALANCE BETWEEN MECHANICAL PROPERTIES AND CORROSION RESISTANCE. DEPENDING ON THE THERMAL TREATMENT, MECHANICAL STRENGTH CAN BECOME CLOSE TO MARTENSITIC STEELS, WHILE MAINTAINING A CORROSION RESISTANCE SIMILAR TO AUSTENITIC STEELS.



CHEMICAL COMPOSITION (ACCORDING TO SUPPLIER)

FE	CR	NI	CU	MN	SI	NB+TA	MO	C	P	S
BALANCE	16.2 %	4 %	4 %	<1 %	<1 %	0.3 %	<0.5 %	<0.07 %	<0.04 %	<0.03 %

MECHANICAL PROPERTIES

AS BUILT

YIELD STRENGTH ¹	700 MPa
TENSILE STRENGTH ¹	800 MPa
ELONGATION A ¹	21 %
YOUNG'S MODULUS ¹	152 GPa
HARDNESS ²	32 HRC
RELATIVE DENSITY ³	OVER 99.5 %

¹ TESTED ACCORDING TO EN 6892-1:2009

² MEASURED ACCORDING TO EN ISO 6507-1

³ MEASURED ACCORDING TO ASTM E1245

SURFACE QUALITY

RA	10 μM
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MEASURED IN COMPLIANCE WITH ISO 4287-1997. RESULTS STRONGLY DEPEND ON SAMPLE GEOMETRICAL COMPLEXITY AND ORIENTATION.

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.