

INCONEL 625

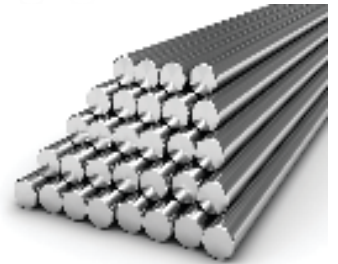
DIRECT METAL LASER SINTERING MATERIAL

DESCRIPTION:

PARTS BUILT FROM EOS NICKELALLOY IN625 CAN BE HEAT TREATED AND MATERIAL PROPERTIES CAN BE VARIED WITHIN SPECIFIED RANGE. PARTS CAN BE MACHINED, SPARK-ERODED, WELDED, MICRO SHOT-PEENED, POLISHED AND COATED IN BOTH AS-BUILT AND IN HEAT TREATED CONDITIONS. THIS TYPE OF ALLOY IS CHARACTERIZED BY HAVING HIGH TENSILE, CREEP AND RUPTURE STRENGTH. CONVENTIONALLY CAST OR WROUGHT COMPONENTS IN THIS TYPE OF NICKEL ALLOY HAVE TYPICALLY EXCELLENT FATIGUE AND THERMALFATIGUE PROPERTIES COMBINED WITH GOOD OXIDATION RESISTANCE.

APPLICATIONS:

NICKELALLOY IN625 IS EXPECTED TO HAVE GOOD CORROSION RESISTANCE IN VARIOUS CORROSIVE ENVIRONMENTS. ESPECIALLY SEA-WATER APPLICATIONS REQUIRE HIGH PITTING AND CREVICE CORROSION RESISTANCE, STRESS-CORROSION RESISTANCE AGAINST CHLORIDE-IONS, HIGH TENSILE AND CORROSION-FATIGUE STRENGTH. HOWEVER, CORROSION RESISTANCE HAS NOT BEEN VERIFIED YET AND THEREFORE IT IS RECOMMENDED TO CONDUCT RELEVANT CORROSION TESTS AND STUDIES PRIOR TO USE IN SPECIFIC CORROSIVE ENVIRONMENT.



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PROPERTY	ISO	METRIC UNITS	
		AS BUILT	AFTER AGE HARDENING
ULTIMATE TENSILE STRENGTH	6892-1	990 MPA	827 MPA
0.2% YIELD STRENGTH	6892-1	725 MPA	414 MPA
ELONGATION	6892-1	35 %	30 %
OXIDATION RESISTANCE TO		980 °C	980 °C
MODULUS OF ELASTICITY	6892-1	170 GPa	170 GPa
HARDNESS, ROCKWELL C	6508-1	30	30

SERVICES AVAILABLE

- PRODUCT DESIGN
- RAPID PROTOTYPING
- SLA
- FRSLA
- POLYJET
- SLS
- DMLS**
- FDM
- PLASTIC CASTING
- CNC MACHINING
- INJECTION MOLD TOOLING
- RAPID TOOLING
- PRODUCTION TOOLING
- INJECTION MOLDING
- METAL CASTING

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