

ALUMINUM ALSI 10MG

LOW WEIGHT HIGH STRENGTH DIRECT METAL LASER SINTERING MATERIAL

DESCRIPTION:

ALSI 10MG IS A TYPICAL CASTING ALLOY WITH GOOD CASTING PROPERTIES AND IS TYPICALLY USED FOR CAST PARTS WITH THIN WALLS AND COMPLEX GEOMETRY. IT OFFERS GOOD STRENGTH, HARDNESS AND DYNAMIC PROPERTIES AND IS THEREFORE ALSO USED FOR PARTS SUBJECT TO HIGH LOADS. THEY CAN BE MACHINED, SPARK-ERODED, WELDED, MICRO SHOT-PEENED, POLISHED AND COATED IF REQUIRED. CONVENTIONALLY CAST COMPONENTS IN THIS TYPE OF ALUMINIUM ALLOY ARE OFTEN HEAT TREATED TO IMPROVE THE MECHANICAL PROPERTIES, FOR EXAMPLE USING THE T6 CYCLE OF SOLUTION ANNEALING, QUENCHING AND AGE HARDENING.

APPLICATIONS:

PARTS IN ALUMINIUM ALSI 10MG ARE IDEAL FOR APPLICATIONS WHICH REQUIRE A COMBINATION OF GOOD THERMAL PROPERTIES AND LOW WEIGHT. TYPICALLY USED IN AEROSPACE AND AUTOMOTIVE INDUSTRIES FOR LOW COST PROTOTYPING, COMPLEX GEOMETRIES OR THIN WALLS.



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

ALUMINIUM ALSI 10MG

PROPERTY	ISO	METRIC UNITS	
		36 C PLATFORM	HP + T6 HEAT TREAT
ULTIMATE TENSILE STRENGTH	6892-1	379 MPA	281 MPA
0.2% YIELD STRENGTH	6892-1	232 MPA	221 MPA
ELONGATION	6892-1	6.9 %	14.1 %
REDUCTION OF AREA	6892-1	10.2 %	20.7 %
MODULUS OF ELASTICITY	6892-1	68.3 GPA	71.0 GPA
HARDNESS, ROCKWELL B	6506-1	64	-

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