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1117 steel round bar

Resulfurized carbon steel | Mozaic Precision Metals technical reference

Good machinability with optional case-hardening route in relevant applications.

GRADE / PRODUCT SELECTION

REFERENCE FIELD	SPECIFICATION / BUYER INFORMATION
Material / product	1117 steel round bar
Alloy or product family	Resulfurized carbon steel
Chemical / material identity	SAE 1117 low-carbon resulfurized grade for free machining
Selection consideration	Good machinability with optional case-hardening route in relevant applications
Condition / temper	Specify cold-drawn state, carburizing expectations and bar length
Reference standard to verify	SAE J403/ASTM A29 for carbon bar
Typical applications	Turned bushings, spacers, small shafts
Limits / cautions	Bulk mechanical properties differ from case hardened surface properties

RELATED MATERIAL CONSIDERATIONS

Compare 11L17 leaded variant and 1215 high-machinability grade.

ORDERING & PROCESSING REQUIREMENTS

Specify the exact grade/product standard, condition, dimensions, quantity, surface finish, straightness and required certification. Specify cold-drawn state, carburizing expectations and bar length.

SOURCING & QUALITY NOTE

Mozaic reviews precision grinding, straightening, polishing, cutting and packaging to order-specific requirements. Numeric strength, chemistry and condition limits must be checked against the applicable specification and actual mill test report.

Reference starting point: SAE J403: Chemical Compositions of SAE Carbon Steels

Material page: https://mozaicprecision.com/material/1117-steel/

General reference: not a mill test report, certified analysis, stock guarantee or design approval.