sales@mozaicprecision.com
847-637-8379

W1 water-hardening tool steel

Tool steel | Mozaic Precision Metals technical reference

Water-hardening response differs sharply from O1 oil-hardening behavior.

GRADE / PRODUCT SELECTION

REFERENCE FIELD	SPECIFICATION / BUYER INFORMATION
Material / product	W1 water-hardening tool steel
Alloy or product family	Tool steel
Chemical / material identity	High-carbon plain tool steel with relatively low alloy content
Selection consideration	Water-hardening response differs sharply from O1 oil-hardening behavior
Condition / temper	Identify annealed delivery and anticipated quench severity and tooling section
Reference standard to verify	ASTM A686 water-hardening tool steel specification where applicable
Typical applications	Small punches, gauges, hand tools
Limits / cautions	Water quenching can cause cracking or distortion; heat-treatment schedule must reflect part geometry

RELATED MATERIAL CONSIDERATIONS

Compare O1 oil-hardening tool steel for lower quench severity.

ORDERING & PROCESSING REQUIREMENTS

Specify the exact grade/product standard, condition, dimensions, quantity, surface finish, straightness and required certification. Identify annealed delivery and anticipated quench severity and tooling section.

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: ASTM International tool steel specification catalog; verify specific grade

Material page: https://mozaicprecision.com/material/w1-steel/

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