

SUPER DUPLEX STAINLESS STEEL MATERIAL REFERENCE

UNS S32760 SUPER DUPLEX STAINLESS STEEL

ASTM A182 F55 / EN 1.4501

Chemical composition, mechanical properties and ASTM product-form references

UNS S32760

ASTM A182 F55

EN 1.4501

CHEMICAL LIMITS

MECHANICAL PROPERTIES

ASTM PRODUCT FORMS

Technical reference prepared for product and project requirement review.

Confirm final material, dimensions, testing and documentation before ordering.

ASTM A182 F55 / EN 1.4501

Technical data navigation

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REFERENCE NOTE

Source dimensional values and footnotes are retained. Confirm the applicable material, grade, schedule and project specification before ordering.

VERIFIED SOURCE VALUES

Composition and ASTM product forms

All limits and designations below are reproduced from the supplied S32760 material sheet.

Chemical composition, mass %

Element	Source limit	Element	Source limit
Nickel (Ni)	6.0-8.0	Carbon (C)	0.03 max
Tungsten (W)	0.5-1.0	Manganese (Mn)	1.0 max
Chromium (Cr)	24.0-26.0	Phosphorus (P)	0.03 max
Copper (Cu)	0.5-1.0	Sulfur (S)	0.01 max
Molybdenum (Mo)	3.0-4.0	Silicon (Si)	1.0 max
Nitrogen (N)	0.2-0.3	Iron (Fe)	Balance

ASTM specifications listed in the supplied sheet

Product form	ASTM specification
Seamless and welded pipe	ASTM A790
Seamless and welded tube	ASTM A789
Welded pipe	ASTM A928
Sheet / plate	ASTM A240
Bar / rod	ASTM A276 / A479
Forging / flange	ASTM A182
Butt-welding fittings	ASTM A815

The cited ASTM standards identify product forms in the supplied source. Final grade, class, heat treatment, dimensions, testing and documentation must be confirmed against the applicable specification and purchase order.

MATERIAL PERFORMANCE REFERENCE

Mechanical properties and source scope

The mechanical values and descriptive statements are retained from the supplied sheet without adding unsupported claims.

Mechanical properties

Material grade	Yield strength	Tensile strength	Elongation	Hardness
S32760	> 550 MPa	730-930 MPa	25% min	290 HB max

Material description stated in the source

- Super duplex stainless steel with an approximately 50:50 austenite-ferrite microstructure.
- Combines high mechanical strength and good ductility with corrosion resistance in a variety of environments.
- Generally supplied in the annealed condition; the source states yield strength in excess of 550 MPa.
- The source states that the material cannot be hardened by heat treatment, while higher surface strength may be achieved by cold working.

Typical application sectors listed in the source

- Chemical processing
- Marine
- Oil and gas
- Pollution control
- Food industry

Application suitability depends on the actual environment, temperature, fabrication route and project requirements. The supplied sheet does not provide detailed corrosion-rate or acceptance-test data.

Send your requirement

Send a drawing, product list, size, material grade, standard, schedule or wall thickness, testing and project document requirements.

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RESPONSE AND DOCUMENT COORDINATION

Initial enquiries are answered within 24 hours, including weekends, by email or WhatsApp. Drawing review, material/standard matching and project document requirements can be discussed and organized with the buyer.

Third-party inspection can be buyer-nominated or coordinated on request.

ADDRESS

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