



Stainless Steel Welded Wire Mesh Mats

Mats are being produced in two styles using one alloy. One product is 6X6 D2.9/D2.9 (gage) that would be assembled in 6-foot x 12-foot mats. The other product is 4X4 D4/D4 (gage) available as 6-foot x 12-foot mats. These sizes are the most popular in carbon mesh. Eventually, these styles will be available in two alloys 316LN and 2205 Duplex. All stainless wire mesh is branded with "SALIT" so buyers know that the wire mesh they are using is from a source in the Salit Group of Companies.

The mats are being produced as SS type 316LN (UNS-S31653). The 316LN is non-magnetic, and can be used where a non-magnetic environment is required, such as MRI chambers or sensitive electronic equipment facilities. 316LN is strong and corrosion resistant for specification under all conditions.

The stainless steel mats are deformed because there is a marked preference for deformed wire over smooth. The mats meet ASTM Standard A1022/A1022M-13, the Standard Specification for Deformed and Plain Stainless Steel Wire and Welded Wire for Concrete Reinforcement <http://www.astm.org/Standards/A1022.htm>. This specification covers stainless steel wire and welded wire reinforcements from hot-rolled stainless steel rod to be used as concrete reinforcement with corrosion resistant and magnetic permeability properties.

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Product Quick Notes

- 6X6 D2.9/D2.9 (gage) that would be assembled in 6-foot x 12-foot mats.
- 4X4 D4/D4 (gage) available as 6-foot x 12-foot mats.
- 316LN is non-magnetic.
- ASTM Standard A1022/A1022M-13, the Standard Specification for Deformed and Plain Stainless Steel Wire and Welded Wire for Concrete Reinforcement

SS type 316LN

UNS Number: S31653

Stainless steel grade 316LN is an austenitic type of steel that is a low carbon, nitrogen-enhanced version of grade 316 steel. The nitrogen content in this steel provides solid solution hardening, and raises its minimum specified yield strength. It also possesses good resistance to general corrosion and pitting/crevice corrosion.

Chemical Composition

Element	Content %
Iron	Balance
Chromium	16.0-18.0
Nickel	10.0-14.0
Molybdenum	2.0-3.0
Manganese	2.00
Silicon	1.00
Nitrogen	0.10-0.30
Phosphorous	0.045
Carbon	0.03
Sulfur	0.03

Mechanical Properties

Properties	Metric	Imperial
Tensile strength	515 MPa	74694 psi
Yield strength	205 MPa	29732 psi
Modulus of elasticity	190-210 GPa	27557-30457 ksi
Poisson's ratio	0.27-0.30	0.27-0.30
Elongation at break (in 50 mm)	60%	60%

Other Designations

ASTM A182	ASTM A213	ASTM A240	ASTM A240	ASTM A276
ASTM A193 (B8MN, B8MNA)	ASTM A312	ASTM A336	ASTM A358	ASTM A376
ASTM A194 (B8MN, B8MNA)	ASTM A403	ASTM A430	ASTM A479	ASTM A666
ASTM A688	ASTM A813	ASTM A814	DIN 1.4406	DIN 1.4429

Applications

Grade 316LN stainless steel is widely used in the following applications:

Trauma nails

Orthopedic implants

Neurological applications

Surgical instruments

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