Stainless Steel Clad

Rebar & Dowel

NUOV INOX

High corrosion resistance

Bend to BS 8666 & BS 4466

Low life cycle costing

Robust site friendly cladding

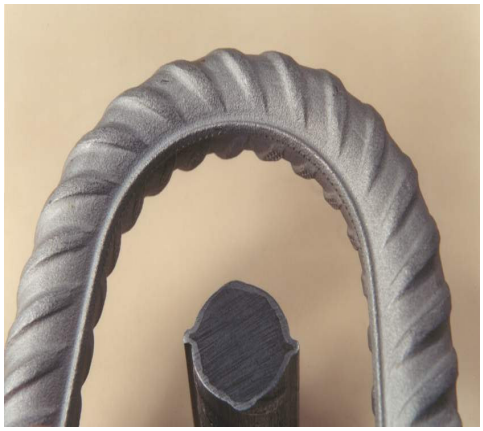
High strength stainless rebar

Competitive against traditional coatings

Nuovinox Stainless composite rebar with carbon steel core for construction.

Nuovinox stainless steel bar is made using the patented green compaction process. Without liquid metal processing of the raw material a metallurgical bond between the durable stainless steel cladding and its carbon steel core is produced.

Nuovinox optimizes stainless steel's corrosion resistance with the high strength and economy of carbon steel bar.



Applications

Nuovinox 316 rebar addresses structures corrosion problems where they occur, at the surface of the rebar.

Only 0.1 mm of corrosion is required to cause cracking of the concrete cover on black rebar. Bridge construction is being revolutionized by the use of Nuovinox for bridge deck mats, especially where de-icing salts are used.

Economic corrosion control

Structures in corrosive chloride environments requiring a design life of 75 to 120 years typically rely on multiple corrosion prevention strategies; eg. High performance concrete and specialist coating combined with increased cover and cathodic protection.

These extra measures are far expensive than using Nuovinox single corrosion strategy.

Depending upon the steel grade savings at least 1/3 to 1/2 lower than an equivalent solid stainless steel.

The superior corrosion performance of Nuovinox prevents early first maintenance and its attendant traffic management costs and disruption.

Superior corrosion performance

- Nuovinox 316 has superior corrosion threshold of over 7kg/m^3 and a pitting corrosion performance PREN number approximately 25. Other grade SS 304 & SS 201 are supplied for specified application.
- Field trials of various coating systems began in the early 1980's, Nuovinox bars have out-performed all the other systems tested.
- Nuovinox conforms to **AASHTO MP 13M/MP 13-04**

Properties and characteristics

- Superior corrosion resistance performance relative to metallic and organic coating systems.
- Available in 460 N/mm^2 and other grades, ribbed bar meets the bending requirements of BS 8666 & BS 4466.
- Fatigue tested to 2 x 106 cycles with no impairment to metallurgical bond.
- High bond shear strength between cladding and core, nearly 300N/mm^2 when tested in accordance with ASTM 264-91.
- Type 2 rebar bond characteristics.
- Continuity of cladding over cut ends by patented capping systems.
- Cladding thickness typically 1 to 1.5 mm.

- Available in size range 16 to 50 mm.