

TATA STEEL

 WeAlsoMakeTomorrow

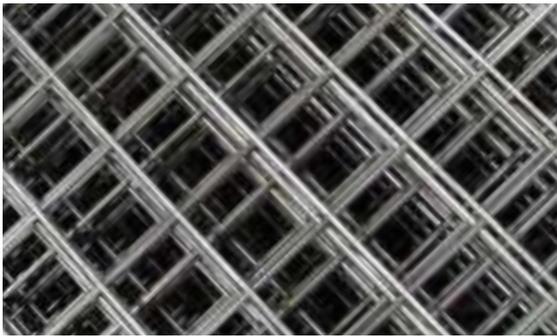
Sm@rt/FAB



BUILD SMART BUILD EASY

INDIA'S FIRST BRANDED WELDED WIRE FABRIC

Sm@rt/FAB



Smartfab, India's first branded welded wire fabric (WWF) is the latest inclusion to our downstream portfolio. The cold-worked, ribbed, electrically fused wire fabric is used for concrete reinforcement. Our solutions help you optimize steel usage and save time and costs.

ENSURING FAST AND EFFICIENT CONSTRUCTION



Faster Construction



Reduce Labour Efforts and Costs



Reduce Material Costs



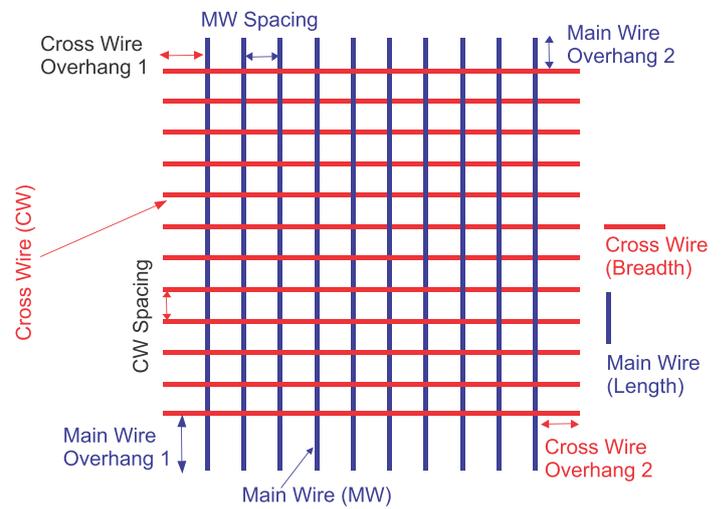
Better Quality Assurance



Easy Site Management



Characteristics of Sm@rtFAB



Standard Sm@rtFAB Sizes		
Type A	Square Fabric	200 mm main wire spacing / 200 mm cross wire spacing
Type B	Rectangular Fabric	100 mm main wire spacing / 200 mm cross wire spacing
Type D	Small Square Fabric	100 mm main wire spacing / 100 mm cross wire spacing
Type E	Square Fabric	150 mm main wire spacing / 150 mm cross wire spacing

Available in:

- **Wire diameter:** From 2 mm to 12 mm at an interval of 1mm
 - a) From 2 mm to 4.9 mm (Plain WWF in roll form)
 - b) From 5 mm to 12 mm (Ribbed/Plain WWF in flat customized shapes)
- **Spacing interval:** In rectangular grids from 75 mm to 300 mm at an interval of 5mm
- **Fabric size:** up to 2.2 meter (Width) x 6 meter (Length)

Features:

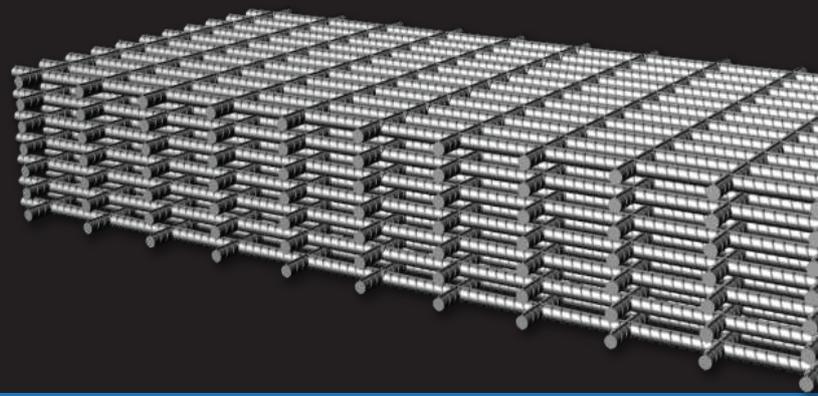
- Welded by electrical fusion
- Accurate spacing guaranteed
- Conforms to IS 1566 (hard drawn steel wire fabric) and IS 432-2 (steel)

Physical and chemical properties of Welded Wire Fabric (WWF) based on IS specifications

Desired physical property	Unit	Min value as per IS 432-2	Achieved 550 Gr Properties
UTS	N/mm ²	570	585
Proof Stress (0.2%)	N/mm ²	480	550
Elongation	%	7.5	10
Shear Strength	0.25 times of Ys => as per IS 1566 with test method of IS 4948		

Desired Chemical composition - %	C	Mn	Mn	S
Min	0.03	0.3	-	-
Max	0.13	0.60	0.05	0.05

Technical DETAILS



Product Code	Wire Spacing		Wire Diameter		Cross Sectional Area		Mass per Area
	Main mm	Cross mm	Main mm	Cross mm	Main mm ² /m	Cross mm ² /m	Kg/m ²
A6/6	200	200	6	6	141	141	2.22
A7/7	200	200	7	7	193	193	3,02
A8/8	200	200	8	8	251	251	3.95
A9/9	200	200	9	9	318	318	4.99
A10/10	200	200	10	10	393	393	6.17
A11/11	200	200	11	11	475	475	7.46
A12/12	200	200	12	12	566	566	4.44
D6/6	100	100	6	6	283	283	0.05
D7/7	100	100	7	7	385	385	6.04
D9/9	100	100	9	9	636	636	9.99
D10/10	100	100	10	10	786	786	12.33
D11/11	100	100	11	11	951	951	14.92
D12/12	100	100	12	12	1131	1131	17.76
E6/6	150	150	6	6	189	189	2.96
E7/7	150	150	7	7	257	257	4.03
E8/8	150	150	8	8	335	335	5.26
E9/9	150	150	9	9	424	424	6.66
E10/10	150	150	10	10	524	524	8.22
E11/11	150	150	11	11	634	634	9.95
E12/12	150	150	12	12	754	754	11.84

ADDITIONAL SERVICES OF SMARTFAB

Tata Steel's Unique product & Service Differentiation

- Design consultancy through dedicated structural consultants contracted by Tata Steel
- Complete supply chain solution from wire rod to mesh at site
- Test certificate along with each consignment
- After sales support eg. Placement drawing

Manufacturing TECHNOLOGY



Sm@rt FAB is a ready-to-use solution that aims at improving productivity standards in construction.

PRODUCT MANUFACTURING TECHNOLOGY

Sm@rtFAB is manufactured using state-of-the-art machine and technology with Tata Steel's quality assurance.

Different stages of the manufacturing process is detailed below:

COLD WORKING:

Increases tensile strength with wire rods made of low carbon steel SAE1008 to 1015 (IS7887 Grade 3-7).

RIBBING:

Better bond with concrete and controls cracks. Ribbing benefit is mostly for overhang regions of a weld mesh.

ELECTRIC FUSION WELDING:

A semi-automatic and precise welding machine is capable of delivering welds at calculated joints with electrical resistance that generate ample amounts of heat to create the weld.

PACKAGING

Every bundle is provided with tags for easy identification and traceability.

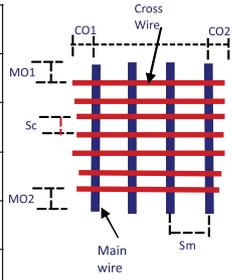
Each tag carries Tata Steel and Sm@rtFAB logo along with detailed dimensions of the welded wire fabric

09-10-2018



5/5/150/150 Sheets: _____

Dm/Dc	5/5
Dimensions	3000x2100
Sm/Sc	150/150
Mo1/Mo2	150/150
Co1/Co2	125/125
Nm/Nc	13/19



Main wire
Cross Wire
Sm

ABC Company

N = Number of wires; D = Diameter of wires

Smart FEATURES

HIGH QUALITY STEEL:

Made of IS 432-2 grade steel with low impurities and for better welding

BETTER CONCRETE BONDING:

The ribbing pattern, uniform spacing and welding ensures better bonding with concrete

IMPROVED CRACK RESISTANCE:

Uniform displacement between each wire and welding joints optimizes load capacity

BETTER QUALITY CHECK:

Each batch of WWF goes through detailed quality checks and are delivered with a test certificate

CONTROLLED MANUFACTURING:

Our wide range of wire diameters and factory-made processes ensure a uniform standard of production

CUSTOMER FIRST APPROACH:

Simply order and the finished product will be delivered at site

ADVANTAGES



SAVE TIME

- A prefabricated solution that reduces slab to slab casting time
- Ready-to-use materials delivered at site
- Valuable labour hours saved



OPTIMIZES DESIGN

- Use any dia from 2-12mm unlike rebars
- Optimized designs for reinforcement requirements
- Reduce overall steel requirement



REDUCES COST

- Eliminate labor costs on cutting, binding and placing rebars
- Save cost of binding wire
- Reduce inventory costs and working capital



HELPS WORKS SMARTER

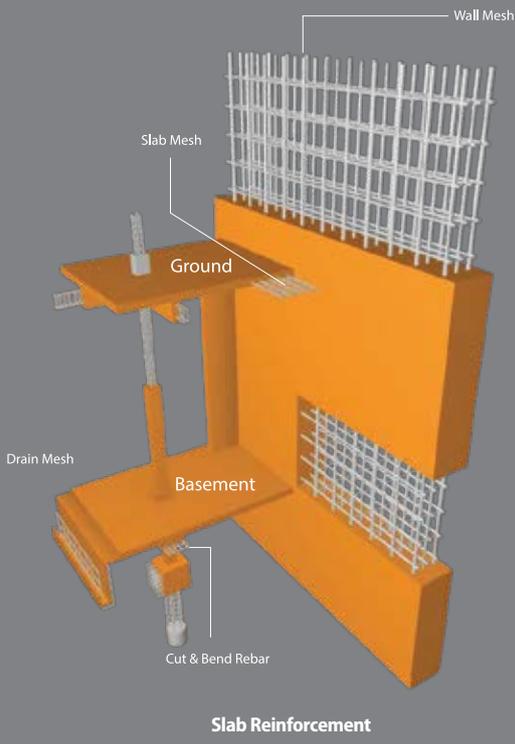
- Easy tracking to minimize pilferage
- Easy inspection for structural consultants
- Perfect spacing through mechanized process



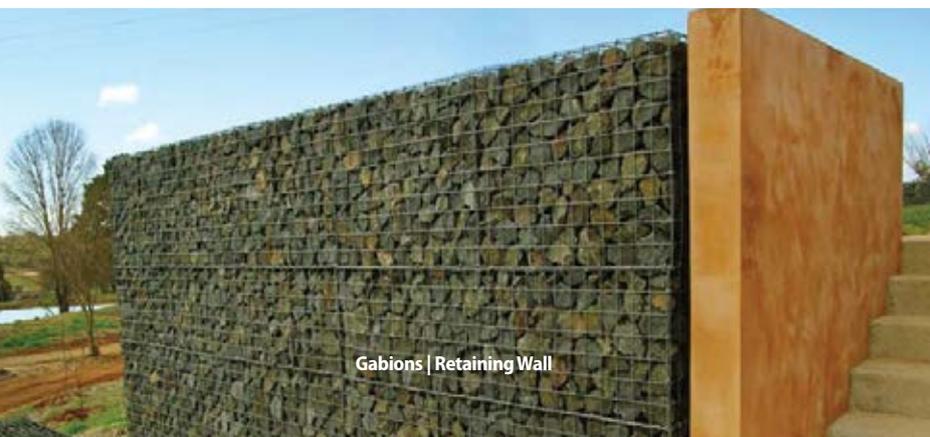
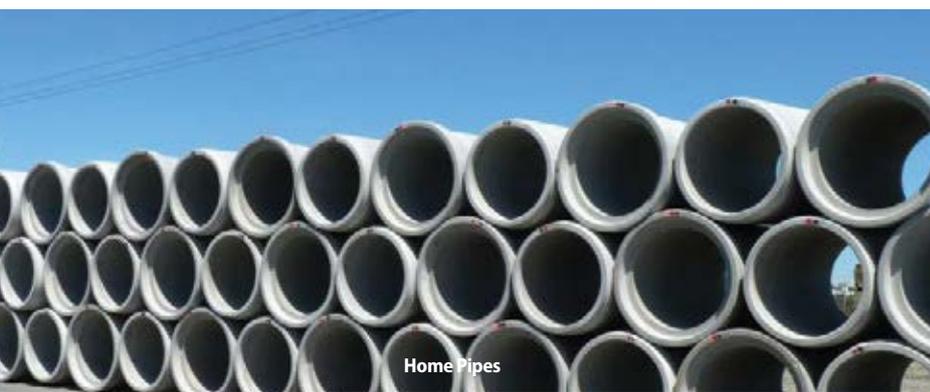
PROVIDES QUALITY ASSURANCE

- All materials with Test Certificates
- Tata Steel assurance of good quality
- Manufactured with only Tata Steel wire rods

APPLICATIONS



Slab Reinforcement





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