1 SCOPE

1.1 This standard prescribes the requirements of solid filler rods and wires for welding structural steels by inert-gas tungsten arc welding (TIG), gas metal arc welding (MIG) or CO_2 welding processes The chemical composition and tensile properties of filler rods and wires are also specified

1.2 This standard also specifies the mechanical properties of weld deposits

2 REFERENCES

The following Indian Standards are necessary adjuncts to this standard

IS No	*Title*
228	Methods of chemical analysis of pig iron, cast iron, and plain carbon and low alloys (*revised*)
812 1957	Glossary of terms relating to welding and cutting of metals
1387 1993	General requirements for the supply of metallurgical materials (*second revision*)
1608 1995	Mechanical testing of metals— Tensile testing (*third revision*)
1757 1988	Method for charpy impact test (V-notch) for metallic material
2002 1992	Steel plates for pressure vessels for intermediate and high temperature service including boilers (*second revision*)
2062 1992	Steel for general structural purposes (*fourth revision*)
3039 1988	Structural steels for construction hulls of ships (*second revision*)

3 TERMINOLOGY

For the purpose of this standard, the definitions given down in IS 1387 1993

5 DIMENSIONS AND TOLERANCES OF WIRES AND RODS

The diameters of rods and wires shall be as specified in Table 1 The tolerances appropriate to the specified diameters are also given

Table 1 Diameters and Tolerances

(*Clause* 5)

Nominal Diameter	Tolerance, mm	
mm	Plus	Minus
0 6	0 01	0 03
0 8	0 01	0 04
0 9	0 01	0 04
1 0	0 01	0 04
1 2	0 01	0 04
1 6	0 01	0 04
1 8	0 01	0 04
2 0	0 01	0 07
2 4	0 01	0 07
2 5	0 01	0 07
2 8	0 01	0 07
3 0	0 01	0 07
3 2	0 01	0 07
4 0	0 01	0 07
5 0	0 01	0 07

Decimal points are not visible

6 REELS FOR WIRE

6.1 The size and type of reel (spool, rims and coils with former) on which the particular diameter of wire is to be supplied shall be as agreed to between the