



DATA SHEET
DS 200
Rev. 05 dd 27/09/2013
INE SUPER

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CLASSIFICATION

AWS SPECIFICATIONS	EN SPECIFICATIONS
AWS A 5.1: E6013	EN ISO 2560-A: E 42 0 RC 1 1
AWS A 5.1M: E4313	
ASME SFA 5.1: E6013	
ASME SFA 5.1M: E4313	

APPROVALS

DB	TÜV	

ALLOY TYPE

Rutile-coated electrode to be used for the welding of carbon and carbon-manganese steels having medium mechanical properties.

APPLICATIONS

Rutile-coated electrode, featuring quick arc start and very good-looking weld bead. Easily removable slag, forgeable weld. Suitable for steel framed buildings. Specifically designed for welding in all positions, including vertical down.

MATERIALS TO BE WELDED

ASTM		EN		Others
A131 Gr A, B, D		10025 Gr S185	10113-3 S275	
API 5LX		10025 Gr S235		
		10025 Gr S275		
		10028-2 P235		
		10028-2 P265		
		10028-2 P295		
		10113-2 S275		

WELDING GUIDELINES

Preheat and PWHT are not required.

TECHNICAL INFORMATION



Welding positions: all positions

WELDING PARAMETERS

Current	AC / DC - (+) Straight polarity						
	2.0	2.5	3.2	4.0			
Diameter (mm)	2.0	2.5	3.2	4.0			
Length (mm)	300 ÷ 350	350	350	350			
Intensity (A)	40 ÷ 70	60 ÷ 100	80 ÷ 130	130 ÷ 170			



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TYPICAL CHEMICAL COMPOSITION OF WELD METAL

C %	Mn %	Si %	S %	P %	Cu %	Ni %	Cr %	Mo %	
0.06	0.50	0.40	0.025	0.025	-	-	-	-	

TYPICAL MECHANICAL PROPERTIES

	Yield strength	Tensile strength	Elongation on % 5d	Impact energy (Charpy V)				
	Rs	Rm	A 5d	0°C	-20°C	-30°C	-40°C	-60°C
	(MPa)	(MPa)	%	(Joule)	(Joule)	(Joule)	(Joule)	(Joule)
as welded	440	540	24	50	-	-	-	-

PRODUCTS AVAILABLE

Process	Product	Classification AWS	Classification EN
MIG/MAG Solid wire	INEFIL S2	AWS A 5.18: ER70S-2	EN 14341-A: G 2Ti
	INEFIL 13.7	AWS A 5.18: ER70S-3	EN 14341-A: G 2Si
	INEFIL S4	AWS A 5.18: ER70S-4	EN 14341-A: G 3Si1
	INEFIL	AWS A 5.18: ER70S-6	EN 14341-A: G 3Si1
	INE SPEEDFIL	AWS A 5.18: ER70S-6	EN 14341-A: G 3Si1
	INEFIL NR	AWS A 5.18: ER70S-6	EN 14341-A: G 3Si1
TIG Rods	INETIG	AWS A 5.18: ER70S-6	EN 636-A: W 3Si1
	INETIG S2	AWS A 5.18: ER70S-2	EN 636-A: W 2Ti
	INETIG 13.7	AWS A 5.18: ER70S-3	EN 636-A: W 2Si
SAW Submerged arc	INESUB S1	AWS A 5.17: EL12	EN 14171-A: S1
	INESUB S2	AWS A 5.17: EM12K	EN 14171-A: S2
	INESUB S2Si	AWS A 5.17: EM12K	EN 14171-A: S2Si
FCAW Cored wire	INETUB R71T1	AWS A 5.20: E71T-1	EN 17632-A: T 46 2 P M
	INETUB R71T1-CO2	AWS A 5.20: E71T-1	EN 17632-A: T 46 2 P C
	INETUB M71TG	AWS A 5.18: E70C-6	EN 17632-A: T 46 2 M M
	INETUB B71T5	AWS A 5.20: E71T-5	EN 17632-A: T 46 4 B M
SMAW Electrodes	INE 40	AWS A 5.1: E6013	EN 2560-A: E 42 0 RC
	INE 44	AWS A 5.1: E6013	EN 2560-A: E 42 0 RC
	INE 45	AWS A 5.1: E6013	EN 2560-A: E 42 0 R
	INE 46	AWS A 5.1: E6013	EN 2560-A: E 42 0 RC
	INE 47	AWS A 5.1: E6013	EN 2560-A: E 42 0 RR
	INE 48 A	AWS A 5.1: E6013	EN 2560-A: E 42 0 R
	INE VERTICAL	AWS A 5.1: E6012	EN 2560-A: E 42 0 RC
	INE AR 150	AWS A 5.1: E7024	EN 2560-A: E 42 0 RR
	INE AR 180	AWS A 5.1: E7024	EN 2560-A: E 42 0 RR