

# STAINLESS STEEL FILLER METAL

special type

# ER 312 SGB

## DESCRIPTION and APPLICATIONS

Stainless steel filler metal suitable for welding dissimilar parent metals such as carbon steel to stainless steel, particularly those grades with high Ni content. ER 312 SGB gives a two phase weld deposit with high percentages of ferrite in an austenite matrix. Even with considerable dilution by austenite forming elements such as Ni, the microstructure remains two phase and thus highly resistant to hot cracking

Chemical composition product analysis % by mass ( single value means maximum value if not different stated )												
C	Si	Mn	P	S	Cr	Ni	Mo	N	Cu	Nb	W	other
0,15	0,3 0,65	1,0 2,5	0,03	0,02	28,0 32,0	8,0 10,5	0,3	-	0,3	-	-	0,5

Specifications	Designations
EN ISO 14343-A	29 9
AWS A5.9	ER312

Expected Minimum mechanical properties of all weld metal *	Typical Results
Proof strenght Rp0,2 [ Mpa ]	450
Tensile strenght Rm [ Mpa ]	650
Elongation [ % ]	15
Impact strength KV [ J ]	40
( * ) : Room temperature if not different stated	

WELDING FILLER METAL SPECIFIC TO	AVAILABLE DIAMETERS [ mm ]							
	0,8	1,0	1,2	1,6	2,0	2,4	3,2	4,0
MIG, PLASMA, PLASMA MIG, LASER								
TIG								

PACKAGING TYPE	WIRE RANGE DIAMETERS [ mm ]	INNER PACKAGING DIAMETER [ mm ]	OUTER PACKAGING DIAMETER [ mm ]	NUMBER OF PIECES PER PACKAGING	WEIGHT [ kg ]	WINDING TYPE
 K300	0,8÷1,6	52	300	60 spools every pallet	15	Precision layer
 RODS	1,0÷4,0 ( lenght 1 m )	-	-	-	5	-