

Product Data Sheet

S 'Submerged arc welding'

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
Jenny Brostrom	P-O Oskarsson	Martin Gehring	EN010965	EN006205	2024-01-02	1 (2)

REASON FOR ISSUE

Approvals: UKCA added, NAKS deleted. General description and Grain Size amended

GENERAL

Agglomerated fluoride-basic flux for Submerged Arc Welding. Primarily for multi-run welding. For highest demands on impact properties, low temperature toughness, strength and CTOD-values. Especially suitable for narrow gap welding due to good slag detachability and smooth side-wall blending. The Advanced Slag Release version improves weldability with excellent slag detachability, even better side wall wetting and stronger grains which improve weld quality due to flux grain size consistency also after multiple recycling cycles. All other attributes unchanged. For Offshore constructions, pressure vessels, power generation, shipbuilding, pipe mills, civil constructions, transport industries, etc.

Produces weld metals with hydrogen contents maximum 5 ml/100 g, in BlockPac (moisture protection) maximum 4 ml/100g. Operates optimally at the lower end of the voltage range. Designed for single and multi wire procedures, for butt and fillet welds. Works equally well on DC and AC current. Single layer and multi layer welding of unlimited plate thickness.

CLASSIFICATION	S Flux	APPROVAL	S	
EN ISO 14174	S A FB 1 55 AC H5	CE	EN 13479	
EN ISO 14174	S A FB 1 55 AC H4 only	DB	51.039.07	
	BlockPac/moisture-protection	UKCA	EN 13479	
		APPROVAL COMMENT		
		Other approvals: See Flux-Wire combinations.		

SLAG TYPE

Fluoride-basic

CHEMICAL COMPOSITION

	Flux (%)		
	Nom		
Al2O3+MnO CaF2 CaO+MgO SiO2+TiO2	20 25 35 15		

Other properties:

Alloy Transfer	No Silicon or Manganese alloying
Basicity (Boniszewski)	nom: 3.2
Bulk Density	nom: 1.1 kg/dm3
Grain Size	0.2-1.6 mm (10x65 mesh), Advanced Slag Release version: 0.315-2.0 mm (9x48 mesh)
Hydrogen	max 5 ml/100g weld metal (Redried flux); max 4 ml/100g in BlockPac (moisture protection)

WELDING POLARITY

DC+, AC



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N					
(kg Flu	ux / kg Wire/Strip)				
DC+	DC+ AC				
0.7	0.6				
1.0					
1.3		1.2			
1.6		1.4			
580					
n): 55					
Ø 4.0					
	N (kg Flu DC+ 0.7 1.0 1.3 1.6 580 n): 55	N (kg Flux / kg Wire/Strip) DC+ / 0.7 (1.0 (1.3 - 580 n): 55	N (kg Flux / kg Wire/Strip) DC+ AC 0.7 0.6 1.0 0.9 1.3 1.2 1.6 1.4 580 n): 55	N (kg Flux / kg Wire/Strip) DC+ AC 0.7 0.6 1.0 0.9 1.3 1.2 1.6 1.4 580 n): 55	N (kg Flux / kg Wire/Strip) DC+ AC 0.7 0.6 1.0 0.9 1.3 1.2 1.6 1.4 580 n): 55

REDRYING

For hydrogen sensitive applications or when flux has picked up moisture: For H5: 300 +/- 25°C (570 +/- 45°F), 2 - 4 h. For hydrogen uncritical applications and when handled and stored in suitable ways: Not necessary. Flux delivered in BlockPac (moisture protection) performs to H4 when bags are undamaged.

Please view special brochure for further information. If bag is damaged or flux has picked up moisture: For H5: Redrying: See above. For H4: 400 +/- 25°C (750°F +/- 45°F), 2 - 4 h.

METALLURGICAL BEHAVIOR

Single Wire, Ø 4.0 mm, DC+, 30 V, 60 cm/min



