

Classifications
EN ISO 14174

S A FB 1 65 AC H5

Characteristics and typical fields of application

UV 420 TTR-W is an agglomerated fluoride-basic flux for Submerged Arc Welding of un- and low-alloyed steel grades. It is characterized by its neutral metallurgical behaviour and has been designed mainly for multi-pass welding. During welding the flux shows very nice operative characteristics on both AC and DC+, and is suitable for Tandem process. Also very good slag detachability in narrow gap weld is especially recommended for welding operations with AC-polarity in combination with wire electrodes Union S 1 CrMo 2 and Union S 2 CrMo, to maintain highest strength levels after long PWHT-durations and meet the most stringent toughness requirements at sub-zero temperatures even after step-cooling treatment. The pick-up of Phosphorus is limited to +0.004 %.

UV 420 TTR-W is particularly suitable for welding hydrocrackers with Union S 1 CrMo 2 on AC-polarity for the highest mechanical properties, however the flux can also be applied in DC+ polarity, and also with other wires grades.

Flux properties

Polarity	DC / AC
Basicity index (Boniszewski)	2.6
Grain size (EN ISO 14174)	3 – 20 (0.3 – 2.0 mm)
Apparent density	1.0 kg/dm ³
Flux consumption	0.9 - 1.1 kg flux per kg wire
Redrying	300 – 350 °C. 2 hrs min.
Diffusible hydrogen (ISO 3690)	max 5 ml / 100 gr (as produced / re-dried ; verified with DC+)

Composition of sub-arc welding flux

	SiO ₂ +TiO ₂	CaO+MgO	Al ₂ O ₃ +MnO	CaF ₂
wt. %	14	34	22	27

Typical wires to combine

Name	EN ISO	Class	AWS / SFA	Class
Union S 2 CrMo	24598-A	S S CrMo1	A5.23 / -5.23	EB2R
Union S 1 CrMo 2	24598-A	S S CrMo2	A5.23 / -5.23	EB3R
Union S 3 NiMo	14171-A	S3Ni1,5Mo	A5.23 / -5.23	EG
Union S 3 NiMo 1	26304-A	S3Ni1Mo	A5.23 / -5.23	EF3

Packaging

Type	Weight
PE-bag	25 kg
DRY SYSTEM	25 kg
Metal bucket	30 kg