

## Classification

EN ISO 14174

S A AB 1 55 AC H5

## Characteristics and typical fields of application

**UV 310 P** is an agglomerated aluminate-basic flux for submerged arc welding for the manufacture of pipes, using the two-run technique, in unalloyed and low alloyed steel grades.

The flux has been optimised to achieve best CTOD- and charpy toughness properties in multi-wire DSAW applications (2-5 wires), especially with wires like Union S 3 MoTiB or Union S 3 TiB.

UV 310 P has been optimised also to reduce possible negative effects of the eventual presence of copper particles.

Very low amount of diffusible hydrogen content HD < 4 ml/100gr acc to ISO 3690 with a low tendency concerning moisture pick-up.

Neutral metallurgical behaviour regarding to Mn and Si and is suitable for sour service applications.

Suitable for longitudinal and spiral pipe welding. Nice flat bead appearance with very good slag detachability. High current carrying capacity.

Depending on wire selection and welding conditions the flux can be used for pipe steel grades acc. to API: Grade X 42 to X 80.

## Flux properties

Grain size (EN ISO 14174)	3 – 20 (0.3 – 2.0 mm)
Basicity (Boniszewski) wt%	1.5
Polarity	DC+ ; AC
Flux consumption	0.9 - 1.1 kg flux per kg wire
Apparent Density	1.15-1.30 kg/dm <sup>3</sup>
Redrying conditions	300 – 350°C, min 2 hrs
Moisture content (AWS A4.4M: 2001; 1050 °C)	≤ 0.05% (as produced / re-dried).
Diffusible hydrogen (ISO 3690)	≤ 4 ml / 100gr (as produced / re-dried).

## Composition of sub-arc welding flux (weight %)

SiO <sub>2</sub> +TiO <sub>2</sub>	CaO+MgO	Al <sub>2</sub> O <sub>3</sub> +MnO	CaF <sub>2</sub>
18	25	35	17

## Typical wires to combine

SAW wires	AWS A5.17 / A5.23	EN ISO 14171-A
Union S 3 Si	EH12K	S3Si
Union S 2 Mo	EA2	S2Mo
Union S 4 Mo	EA3	S4Mo
Union S 3 TiB	EG	SZ
Union S 3 MoTiB	EA2TiB	S2MoTiB

## Packaging

Type	Weight (kg)
DRY SYSTEM BIGBAG	1000
DRY SYSTEM	25