

## Classifications

<b>EN ISO 24598-B</b>	<b>AWS A5.23 / SFA-5.23</b>
S 55 Z FB SU 5CM	F8PZ-EB6-B6-H4

## Characteristics and typical fields of application

**Union S 1 CrMo 5 - UV 420 TTR-C** is a wire flux combination for submerged arc welding creep resistant steel grades with 5% Cr and 0,5% Mo. This combination is recommended where increased strength properties are required combined with relative low impact toughness requirements.

**UV 420 TTR-C** is agglomerated fluoride basic flux with the special feature of a Carbon support resulting in a compensated Carbon loss and a low level of diffusible hydrogen. More detailed information is available in the separate datasheet of the flux.

## Base materials

Creep resistant and steels resistant to hydrogen such as 12CrMo19-5 and similar steels (type 6% Cr 0,5% Mo).

1.7362 – X12CrMo5

ASTM A 182 Gr. F5; A 193 Gr. B5; A 213 Gr. T5; A217 Gr. C5; A 234 Gr. WP5; A 314 Gr. 501; A335 Gr. P5 u. P5c; A 369 Gr. FB 5; A 387 Gr. 5; A 426 Gr. CP5

## Typical analysis

wt.-%	C	Si	Mn	Cr	Mo
wire	0.08	0.3	0.5	5.8	0.6
all-weld metal	0.09	0.45	0.8	5.4	0.6

## Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength $R_{p0.2}$	Tensile strength $R_m$	Elongation A ( $L_0=5d_0$ )	Impact energy ISO-V KV J
	MPa	MPa	%	+20°C
a1, DC+	510 ( $\geq 470$ )	550 (550 - 690)	26 ( $\geq 20$ )	$\geq 27$

a1 = 1 hour 740 °C

## Operating data

Polarity	DC +	Dimension mm
		2.5
		3.0
		4.0

Preheating and interpass temperature 200 – 250°C. The recommended PWHT weld heat treatment is annealing at 740°C/min. 2 hrs.

## Approvals

-