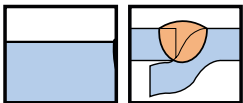
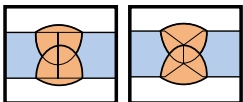
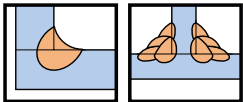
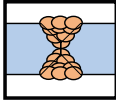
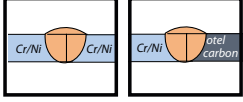


# ***FLUXURI SI SARME FLUXES AND WIRES***



Procedeul de sudare automat sub strat de flux este un procedeu automat care permite obtinerea unei productivitati foarte mari: viteza mare de sudare, absenta pregatirii obligatorii (datorita patrunderii mari, sanfrenul nu este mereu necesar), suduri de calitate excelenta (foarte buna patrundere si asezare, fara stropi). Caracteristicile sudurii automat sub strat de flux ajuta de asemenea si la obtinerea unui excelent nivel de confort pentru operatorii sudorii (fara fum, arcul nu e vizibil). Procedeul este utilizat in numeroase sectoare de activitate: constructii navale, fabricarea de tevi, cazangerie, constructii sudate cu coeficient mare de siguranta.

Criteria de alegere a cuplului sarma/flux	Aplicatii	Grosime	Cupluri sarma/flux recomandate
<b>Sudare unistrat</b> 	Sudarea circulara si longitudinala, a buteliilor de gaz, a boilerelor sau a extintoarelor, cuvelor, asamblari sudate orizontal.	Intre 2 si 5 mm pentru oteluri tip: de la S 235 pana la S 355.	<ul style="list-style-type: none"> <li>• AS 26/AS 231</li> <li>• AS 35/AS 461</li> <li>• AS 26/AS 50</li> <li>• AS 26/AS 55</li> </ul>
<b>Sudare bistrat (2 treceri)</b> 	Cazangerie cu grosimi mari, tevi, constructii metalice, santiere navale, sudarea circulara si longitudinala a rezervoarelor, corpurilor decazane, imbinarea cap la cap a panourilor.	Intre 5 si 20 mm pentru oteluri tip: S 275 J2 G3 pana la S 355 NL.	<b>1</b>
<b>Sudare de colt</b> 	Sudarea grinzilor, lonjeroane de camioane macarale, batiuri de masini speciale, etc.		<ul style="list-style-type: none"> <li>• AS 26/AS 231</li> <li>• AS 35/AS 461</li> </ul>
<b>Sudare multistrat</b> 	Lucrari de cazangerie, de grosimi mari, tevi off-shore, nuclear.	Grosimi >20 mm oteluri carbon de tip S 275 J2 G3 pana la S 355 NL.	<b>2</b>
<b>Sudarea otelurilor inoxidabile</b> 	Constructii metalice si lucrari de cazangerie din inox.	Intre 5 si 20 mm pentru toate tipurile de oteluri inoxidabile.	<ul style="list-style-type: none"> <li>• 304 L/304:</li> <li>AS 308 L/CN100</li> <li>• 316 L/316:</li> <li>AS 316 L/CN100</li> <li>• Otel carbon cu otel inox:</li> <li>AS 309 L/CN100</li> <li>• Otel Duplex:</li> <li>LEXAL S 22.9 3N/F500</li> </ul>

#### Clasificarea conform norme:

	EN 756	AWS SFA 5.17/5.23
<b>Cu fluxuri aglomerate</b>		
AS 26 / AS 231	S 3T 0 AR S1	F7A0-EL12
AS 26 / AS 461	S 35 2 AB S1	F6AP2-EL12
AS 35 / AS 231	S 4T 0 AR S2	F7A0-EM12K
AS 35 / AS 461	S 42 3 AB S2	F7AP4-EM12K
AS 36 / AS 461	S 42 4 AB S4	F7AP4-EH14
AS 37 NL / AS 589	S 46 6 FB S3Si	F7AP8-EH12K
AS 308 L / CN 100	S A AB 27 89 Cr AC	

#### Clasificarea conform norme:

	EN 756	AWS SFA 5.17/5.23
<b>Cu fluxuri topite</b>		
AS 26 / AS 50	S 35 0 MS S1	F6A0-EL12
AS 26 / AS 55	S F 38 0 MS S1	F7A0-EL12



## 1 Sudarea bistrat cupluri sarme/fluxuri recomandate:

Rezilienta (KV) ≥50 J/cm <sup>2</sup>	Rm (otel)		
	Rm ≥410 N/mm <sup>2</sup> Mn ≤1%	Rm ≥470 N/mm <sup>2</sup> 1 ≤ Mn% ≤ 1.3	Rm ≥510 N/mm <sup>2</sup> Mn ≤1.3%
0°C	AS 26/AS 231 AS 35/AS 461	AS 35/AS 231 AS 35/AS 461	
-20°C	AS 35/AS 461 AS 36/AS 461	AS 40A/AS 461	AS40/AS 461
-40°C *	AS 36/AS 461	AS 37LN/AS 461	AS 40/AS 589

### RECOMANDARI:

Pentru obtinerea caracteristicilor dorite, trebuie respectate cateva reguli:

- calcinarea fluxurilor aglomerate,
- utilizarea de fluxuri nepoluate,
- polizarea corecta a capetelor de sudat,
- mentinerea temperaturii intre straturi < 50 °C,
- energia trebuie sa fie cuprinsa intre 1.5 si 1.9 kJ/cm.

$$E_{ad} = \frac{U \times I \times 0,06}{V_s} \times \frac{1}{e}$$

$$E_{ad} \left[ \frac{kJ}{cm} \times \frac{1}{mm} \right] = \text{Energie adaptata}$$

U [V]	= tensiune de sudare
I [A]	= intensitate de sudare
V <sub>s</sub> [ $\frac{cm}{min}$ ]	= viteza de sudare
e [mm]	= grosimea tablelor

## 2 Sudarea multistrat cupluri sarme/fluxuri recomandate:

### 1. Stare sudata

Rezilienta (KV) ≥50 J/cm <sup>2</sup>	Rm (metal depus)		
	Rm ≤550 N/mm <sup>2</sup>	Rm ≤620 N/mm <sup>2</sup>	Rm ≤700 N/mm <sup>2</sup>
-20°C	AS 35/AS 461	AS 37 LN/AS 461	AS 40/AS 461
-40°C *	AS 37 LN/AS 589	AS 40A/AS 461	-
-60°C *	FREZAL 35Ni/AS 6 30	FREZAL 35Ni2/AS 620	-

### RECOMANDARI:

Pentru obtinerea caracteristicilor dorite, trebuie respectate cateva reguli:

- calcinarea fluxurilor aglomerate,
- utilizarea de fluxuri nepoluate,
- polizarea corecta a capetelor de sudat,
- mentinerea temperaturii intre straturi intre 150 °C si 200 °C,
- energia trebuie sa fie cuprinsa intre 1.5 si 2.0 kJ/cm.

### 2. După tratament termic

Tratament termic	Rm (metal depus)		
	500 < Rm < 620 N/mm <sup>2</sup>		
	KV -20°C	KV -40°C	KV -60°C
580-600°C 1 à 3 h Vrf ≥50°C/h	AS 37 LN/AS 461	AS 37 LN/AS 589	AS 37 LN/AS 589
580-600°C ≤10 h Vrf ≥20°C/h	AS 36/AS 589	AS 37 LN/AS 589	-

$$E_{ad} = \frac{U \times I \times 0,06}{V_s} \times \frac{1}{e}$$

$$E_{ad} \left[ \frac{kJ}{cm} \times \frac{1}{mm} \right] = \text{Energie adaptata}$$

U [V]	= tensiune de sudare
I [A]	= intensitate de sudare
V <sub>s</sub> [ $\frac{cm}{min}$ ]	= viteza de sudare
e [mm]	= grosimea tablelor

# FLUX AS 50

FLUX TOPIT PENTRU SUDARE / SUBARC FUSED FLUX

## CLASIFICARE / STANDARDS

EN 760:	S F MS 1 67 AC
EN 756:	S 35 0 MS S1 (AS 25) S 38 2 MS S2 (AS 35)
AWS A5.17:	F6A0-EL12 (AS 25) F6A2-EM12K (AS 35)

## AUTORIZARI / APPROVALS

with AS 35: TÜV

## CARACTERISTICI PRINCIPALE

Flux topit ce contine Mn si Si, pentru sudarea otelurilor carbon in unul sau mai multe straturi, folosind una sau mai multe sarme. Desprindere foarte buna a zgurii in sanfren. Poate fi utilizata de asemenea si pentru incarcare. Este recomandata si in cazul sudarii utilizand suportii de cupru sau placute ceramice.

## MAIN FEATURES

Fused flux additive in Mn and Si. Suitable for carbon steel welding, in single or multipass technique and single or multiwire applications. Good slag removal in fillet and groove welds. It can also be used for facing and for welding on copper bar.

## DOMENII DE APLICATIE

Butelii de joasa presiune;  
Constructii metalice;  
Constructii navale;  
Reconditionari.

## MAIN APPLICATIONS

Tanks and LPG cylinder;  
Light boiler works;  
Structural steelworks;  
Shipbuilding;  
Facing.

## CONSTITUENȚI PRINCIPALI % (Valori tipice) / MAIN CONSTITUENTS % (Typical values)

CaO = 7  
SiO<sub>2</sub> = 39

MnO = 43  
CaF<sub>2</sub> = 6

Indice de bazicitate / Basicity Index: 0.8 ca.  
(in acord cu Boniszewski / according to Boniszewski)

## DEPOZITARE - CALCINARE

DC sau AC, cu una sau mai multe sarme pana la 1100 A pe electrod. Calcinare la 350°C timp de 2 ore.

## STORAGE - REBAKING

DC or AC, in single or multi-wire up to 1100 A per electrode. 350°C for 2 h.

## ANALIZA CHIMICA A METALULUI DEPUȘ / ALL-WELD METAL CHEMICAL ANALYSIS %

Sarma/Wire	C	Mn	Si	S	P				
AS 26	0.04 - 0.06	0.9 - 1.3	0.15 - 0.30	≤ 0.02	≤ 0.03				
AS 35	0.04 - 0.06	1.1 - 1.5	0.15 - 0.45	≤ 0.02	≤ 0.03				

## CARACTERISTICI MECANICE / MECHANICAL PROPERTIES

Sarma/Wire	Tratament termic/Heat treatment	Rm N/mm <sup>2</sup>	Rs N/mm <sup>2</sup>	E % 5d	Kv J -18°C	Kv J -29°C
AS 26	Stare sudata/As welded	450 - 520	≥ 350	≥ 27	≥ 27	
AS 35	Stare sudata/As welded	470 - 550	≥ 400	≥ 22	≥ 50	≥ 27

## AMBALARE STANDARD / STANDARD PACKING

Sac/Bag	25 kg	W000280319	W000280320				
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# FLUX AS 55

FLUX TOPIT PENTRU SUDARE / SUBARC FUSED FLUX



## CLASIFICARE / STANDARDS

EN 760:	S F MS 1 67 AC
EN 756:	S 42 0 MS S1 (AS 25) S 42 0 MS S2 (AS 35)
AWS A5.17:	F7A0-EL12 (AS 25) F7A0-EM12K (AS 35)

## AUTORIZARI / APPROVALS

## CARACTERISTICI PRINCIPALE

Flux topit ce contine Mn si Si, pentru sudarea otelurilor carbon in unul sau mai multe straturi, folosind una sau mai multe sarme. Zgura se desprinde bine in cazul sudurilor executate in sanfren. Recomandat in special pentru sudarea cu mare viteza a tablelor subtiri (3 - 5 mm). Poate fi utilizat deasemenea si in cazul sudurilor executate pe placute de cupru.

## MAIN FEATURES

Fused flux additive in Mn and Si, suitable for carbon steel welding, in single or multipass technique and single or multiwire applications. Good slag removal in fillet and groove welds. Especially suitable for high speed welding on thin thicknesses (3 - 5 mm). It can also be used for welding on copper bar.

## DOMENII DE APLICATIE

Stalpi de iluminat;  
Rezervoare de apa;  
Constructii.

## MAIN APPLICATIONS

Lamps and telephone poles;  
Light boiler works;  
Structural steelworks.

## CONSTITUENȚI PRINCIPALI % (Valori tipice) / MAIN CONSTITUENTS % (Typical values)

CaO = 2                      MnO = 45                      Indice de bazicitate / Basicity Index: 0.9 ca.  
SiO<sub>2</sub> = 22                      TiO<sub>2</sub> = 20                      CaF<sub>2</sub> = 3                      (in acord cu Boniszewski / according to Boniszewski)

## DEPOZITARE - CALCINARE

DC pana la 900 A pe sarma.  
350°C pentru 2 ore.

## STORAGE - REBAKING

DC up to 900 A per wire.  
350°C for 2 h.

## ANALIZA CHIMICA A METALULUI DEPUȘ % / ALL-WELD METAL CHEMICAL ANALYSIS %

Sarma/Wire	C	Mn	Si	S	P				
AS 26	0.04 - 0.06	0.9 - 1.3	0.1 - 0.3	≤ 0.02	≤ 0.03				
AS 35	0.04 - 0.06	1.1 - 1.5	0.1 - 0.4	≤ 0.02	≤ 0.03				

## CARACTERISTICI MECANICE / MECHANICAL PROPERTIES

Sarma/Wire	Tratament termic/Heat treatment	Rm N/mm <sup>2</sup>	Rs N/mm <sup>2</sup>	E % 5d	Kv J 0°C	Kv J -20°C
AS 26	Stare sudata/As welded	490 - 560	≥ 400	≥ 22	≥ 40	≥ 27
AS 35	Stare sudata/As welded	520 - 600	≥ 420	≥ 22	≥ 40	≥ 27

## AMBALARE STANDARD / STANDARD PACKING

Sac/Bag	25 kg	W000280321	W000280322				
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### CLASIFICARE / STANDARDS

EN 760:	S A AR 1 87 AC
EN 756:	S 4T A AR S1 (AS25) - S 4T 0 AR S2 (AS35) - S 4T 0 AR S4 (AS36) - S 4T 0 AR S0 (AS48)
AWS A5.17:	F7A0-EL12 (AS25) - F7A0-EM12K (AS35) - F7A0-EH14 (AS36) - F7A4 - EC1(FLUXOCORD 31 HD)
AWS A5.23:	F8AZ-EG-G (AS48)

### AUTORIZARI / APPROVALS

with AS 26:	TÜV
with AS 35:	RINA, ABS, LRS, TÜV, DB
with AS 36:	RINA, ABS, TÜV, DB, LRS, GL, DNV, BV
with AS 40:	TÜV

### CARACTERISTICI PRINCIPALE

Flux aglomerat rutilic, ce contine Mn si Si, recomandat pentru sudarea otelurilor carbon in doua sau trei straturi, utilizand una sau mai multe sarme, cu mare viteza, cu un aspect deosebit al cordonului de sudura. In combinatie cu sarma AS 36 poate fi folosit numai pentru realizarea sudurilor de colt intr-o singura trecere. Desprindere excelenta a zgurii atat la sudarea de colt cat si in cazul sudurilor efectuate in sanfren.

### MAIN FEATURES

Agglomerated rutile flux, additive in Mn and Si, suitable for carbon steel welding in two or three passes in single or multi-wires at high speed with excellent bead appearance. Excellent slag removal in fillet and root passes. In combination with AS 36 wire is suitable only for fillet welding in single pass. Good slag removal in fillet and groove welds.

### DOMENII DE APLICATIE

Constructii;  
Mici rezervoare;  
Butelii de apa;  
Constructii navale si tevi;  
Cilindri de gaz.

### MAIN APPLICATIONS

Structural steelworks;  
Small tanks;  
Light boiler works;  
Beams; shipbuilding and pipes;  
Gas cylinders.

### CONSTITUENȚI PRINCIPALI % (Valori tipice) / MAIN CONSTITUENTS % (Typical values)

CaO + CaF<sub>2</sub> + MgO = 17  
SiO<sub>2</sub> + = 19

MnO + FeO = 17  
Al<sub>2</sub>O<sub>3</sub> + TiO<sub>2</sub> + ZrO<sub>2</sub> = 52

Indice de bazicitate / Basicity Index: 0.4 ca.  
(in acord cu Boniszewski / according to Boniszewski)

### DEPOZITARE - CALCINARE

DC sau AC, cu una sau mai multe sarme pana la 1200A pe sarma.  
350° pentru 2 ore pentru obtinerea H<sub>diff</sub> < 5 ml/100 gr max.

### STORAGE - REBAKING

DC or AC, in single or multi-wire up to 1200 A per wire.  
350° C for 2 hours to obtain diffusible hydrogen 5 ml/100 gr max.

### ANALIZA CHIMICA A METALULUI DEPUȘ / ALL-WELD METAL CHEMICAL ANALYSIS %

Sarma/Wire	C	Mn	Si	S	P	Cu	Ni	Cr	Mo
AS 26	0.03 - 0.05	0.9 - 1.4	0.6 - 1.0	≤ 0.02	≤ 0.03	≤ 0.35			
AS 35	0.025 - 0.05	1.1 - 1.5	0.5 - 1.1	≤ 0.02	≤ 0.03	≤ 0.35			
AS 36	0.03 - 0.05	1.4 - 2.0	0.6 - 1.0	≤ 0.02	≤ 0.03	≤ 0.35			
AS 48	0.03 - 0.05	1.2 - 1.6	0.6 - 1.0	≤ 0.02	≤ 0.03	≤ 0.50	0.6 - 0.9	0.2 - 0.4	
FC 31 HD	0.05 - 0.10	1.5 - 1.9	0.6 - 1.0	≤ 0.02	≤ 0.03	≤ 0.30			

### CARACTERISTICI MECANICE / MECHANICAL PROPERTIES

Sarma/Wire	Tratament termic/Heat treatment	Rm N/mm <sup>2</sup>	Rs N/mm <sup>2</sup>	E % 5d	Kv J 0°C	Kv J -20°C
AS 26	Stare sudata/As welded	520 - 650	≥ 400	≥ 22	≥ 40	≥ 27
AS 35	Stare sudata/As welded	520 - 650	≥ 400	≥ 22	≥ 50	≥ 27
AS 36	Stare sudata/As welded	540 - 650	≥ 400	≥ 22	≥ 40	≥ 27
AS 48	Stare sudata/As welded	550 - 690	≥ 470	≥ 20	≥ 30	
FC 31 HD	Stare sudata/As welded	520 - 650	≥ 400	≥ 22	≥ 100	≥ 70

### AMBALARE STANDARD / STANDARD PACKING

Sac/Bag	25 kg	W000280300					
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# FLUX AS 461

FLUX AGLOMERAT PENTRU SUDARE / SUBARC AGGLOMERATED FLUX



## CLASIFICARE / STANDARDS

EN 760:	S A AB 1 67 AC H5
EN 756:	S 35 2 AB S1 (AS25) - S 42 3 AB S2 (AS35) - S 42 4 AB S3Si (AS37LN) - S 46 2 AB S2Mo (AS40A) - S 42 4 AB S4(AS36) - S 50 3 AB S4Mo (AS40)
AWS A5.17:	F6AP2-EL12 (AS25) - F7AP4-EM12K (AS35) - F7AP6-EH12K (AS37LN) - F7AP4-EH14 (AS36)-F7AP8-EC1(SUBCORED 31HD)
AWS A5.23:	F8AP2-EA2-A2 (AS40A) - F7A2-EG-G (AS48) - F9A2-EA3-A3 (AS40) - F8A4-EG-G (AS67)

## AUTORIZARI / APPROVALS

with AS35:	RINA, ABS, LRS, TÜV, GL, DNV, DB, BV
with AS36:	TÜV, DB, DNV
with AS40A:	RINA, ABS, LRS, GL, DNV, BV
with AS67:	RINA, ABS, DNV, BV, GS, LRS, TÜV
31 HD:	RINA, LR, DNV

## CARACTERISTICI PRINCIPALE

Flux aglomerat semibazic pentru sudarea otelurilor carbon sau slab aliate, in unul sau multe straturi, folosind una sau mai multe sarme. Metalul depus poseda bune caracteristici mecanice si la temperaturi scazute. Desprindere buna a zgurii in cazul sudarii de colt si in sanfren. Recomandat in special pentru sudarea longitudinala sau elicoidala a tevilor utilizand sarme aliate cu Mo, Ni, Ti, B.

## MAIN FEATURES

Agglomerated semi-basic flux suitable for carbon and low alloy steel welding, in single or multipass technique and in single or multiwire applications. The weld metal, produced in combination with corresponding wire electrodes, offers good mechanical properties also at low temperature. Good slag removal in fillet and groove welds. Particularly suitable for longitudinal and spiral welding of pipes also in combination with wires Mo, Ni, Ti, B alloyed.

## DOMENII DE APLICATIE

Boilere;  
Tevi;  
Constructii navale;  
Constructii metalice;  
Platforme marine;  
Rezervoare si aparate sub presiune.

## MAIN APPLICATIONS

Boiler works;  
Piping mills;  
Shipbuilding;  
Structural steelworks;  
Off-shore;  
Tanks and pressure vessels.

## CONSTITUENȚI PRINCIPALI % (Valori tipice) / MAIN CONSTITUENTS % (Typical values)

CaO + CaF <sub>2</sub> + MgO = 39	MnO + FeO = 9	Indice de bazicitate / Basicity Index: 1.3 ca.
SiO <sub>2</sub> = 20	Al <sub>2</sub> O <sub>3</sub> + TiO <sub>2</sub> + ZrO <sub>2</sub> = 30	(in acord cu Boniszewski / according to Boniszewski)

## DEPOZITARE - CALCINARE

DC sau AC, cu una sau mai multe sarme pana la 1000A pe sarma.  
350° pentru 2 ore pentru obtinerea Hdif < 5 ml/100 gr max.

## STORAGE - REBAKING

DC or AC, in single or multi-wire up to 1000 A per wire.  
350° C for 2 hours to obtain diffusible hydrogen 5 ml/100 gr max.

## ANALIZA CHIMICA A METALULUI DEPUȘ / ALL-WELD METAL CHEMICAL ANALYSIS %

Sarma/Wire	C	Mn	Si	S	P	Cu	Ni	Cr	Mo
AS 25	0.03 - 0.06	0.6 - 1.0	0.1 - 0.5	≤ 0.02	≤ 0.025	≤ 0.35			
AS 35	0.03 - 0.05	1.0 - 1.6	0.2 - 0.6	≤ 0.02	≤ 0.025	≤ 0.35			
AS 36	0.03 - 0.06	1.6 - 2.1	0.3 - 0.6	≤ 0.02	≤ 0.025	≤ 0.35			
AS 37 LN	0.03 - 0.05	1.3 - 1.8	0.2 - 0.4	≤ 0.02	≤ 0.025	≤ 0.35			
AS 40A	0.04 - 0.08	1.1 - 1.4	0.2 - 0.6	≤ 0.02	≤ 0.025	≤ 0.35			0.4 - 0.65
AS 40	0.04 - 0.08	1.7 - 2.0	0.2 - 0.6	≤ 0.02	≤ 0.025	≤ 0.35			0.4 - 0.65
AS 48	0.03 - 0.06	1.2 - 1.6	0.3 - 0.7	≤ 0.02	≤ 0.025	0.3 - 0.5	0.6 - 0.9	0.2 - 0.4	
AS 67	0.05 - 0.12	1.2 - 1.6	0.2 - 0.4	≤ 0.02	≤ 0.025	≤ 0.35	0.7 - 1.0		0.2 - 0.3
SUBCORED 31 HD	0.05 - 0.10	1.5 - 1.8	0.2 - 0.5	≤ 0.02	≤ 0.025				

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**CARACTERISTICI MECANICE / MECHANICAL PROPERTIES**

Sarma/ Wire	Tratament termic/ Heat treatment	Rm N/mm <sup>2</sup>	Rs N/mm <sup>2</sup>	E % 5d	Kv J -20°C	Kv J -30°C	Kv J -40°C	Kv J -51°C
AS 25	Stare sudata/As welded	440 - 550	≥ 350	≥ 22	≥ 80	≥ 27	-	-
AS 25	620°C x 1h	420 - 550	≥ 330	≥ 22	≥ 80	≥ 27	-	-
AS 35	Stare sudata/As welded	510 - 640	≥ 420	≥ 22	≥ 100	≥ 50	≥ 27	-
AS 35	620°C x 1h	490 - 640	≥ 400	≥ 22	≥ 110	≥ 60	≥ 40	-
AS 36	Stare sudata/As welded	510 - 640	≥ 430	≥ 22	-	≥ 60	≥ 50	-
AS 36	620°C x 1h	490 - 650	≥ 400	≥ 22	-	≥ 60	≥ 50	-
AS 37 LN	Stare sudata/As welded	530 - 650	≥ 440	≥ 22	-	-	≥ 60	≥ 27
AS 37 LN	620°C x 1h	510 - 650	≥ 420	≥ 22	-	-	≥ 60	≥ 27
AS 40A	Stare sudata/As welded	570 - 690	≥ 490	≥ 20	≥ 90	≥ 27	-	-
AS 40A	620°C x 1h	560 - 690	≥ 480	≥ 20	≥ 90	≥ 27	-	-
AS 40	Stare sudata/As welded	630 - 720	≥ 540	≥ 19	≥ 90	≥ 50	-	-
AS 48	Stare sudata/As welded	510 - 660	≥ 420	≥ 22	≥ 50	≥ 27	-	-
AS 67	Stare sudata/As welded	590 - 660	≥ 500	≥ 22			≥ 50	-
SUBCORED FC 31 HD	Stare sudata/As welded	510 - 640	≥ 420	≥ 22	≥ 100	≥ 60	≥ 40	-
SUBCORED FC 31 HD	620°C x 1h	480 - 650	≥ 400	≥ 22	≥ 110	≥ 30	≥ 50	-

**AMBALARE STANDARD / STANDARD PACKING**

Sac/Bag	25 kg	W000280306	Butoi/Drum	600 kg	W000280309			
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# FLUX AS 589

FLUX AGLOMERAT PENTRU SUDARE / SUBARC AGGLOMERATED FLUX



## CLASIFICARE / STANDARDS

EN 760:	SA FB 1 55 AC H 5
EN 756:	S46 6 FB S3Si (AS37LN) - S 46 5 FB S4 (AS36) - S 50 4 FB S4 Mo (AS40) - S 50 5 FB S3 Mo (AS40B)
AWS A5.17:	F7AP8-EH12K (AS37LN) - F7AP6-EH14 (AS36)
AWS A5.23:	F7AP6-EA3-A3 (AS40) - F8AP6-EA4-A4 (AS40B)

## AUTORIZARI / APPROVALS

With AS 37LN: TÜV

## CARACTERISTICI PRINCIPALE

Flux aglomerat bazic destinat sudarii otelurilor carbon si slab aliate, cu caracteristici mecanice bune la temperaturi scazute. Aspect excelent al cordonului si desprindere foarte buna a zgurii. Poate fi utilizat pentru una sau mai multe treceri, folosind una sau mai multe sarme.

## MAIN FEATURES

Agglomerated basic flux suitable for welding carbon and low alloy steels with good impact values at low temperatures. Excellent bead aspect and good slag detachability even in fillet welding. Suitable both for single and multipass technique and for single and multiwire applications.

## DOMENII DE APLICATIE

Recipienti sub presiune;  
Constructii;  
Boilere;  
Rezervoare.

## MAIN APPLICATIONS

Pressure vessels;  
Structural steelworks;  
Boiler works;  
Tanks.

## CONSTITUENȚI PRINCIPALI % (Valori tipice) / MAIN CONSTITUENTS % (Typical values)

SiO<sub>2</sub> + TiO<sub>2</sub> = 15  
Al<sub>2</sub>O<sub>3</sub> + MnO = 17

CaO + MgO = 38  
CaF<sub>2</sub> = 25

Indice de bazicitate / Basicity Index: 3.0 ca.  
(in acord cu Boniszewski / according to Boniszewski)

## DEPOZITARE - CALCINARE

DC sau AC, cu una sau mai multe sarme.  
350°C pentru 2 ore pentru obtinerea H<sub>01r</sub> < 5 ml/100 gr max.

## STORAGE - REBAKING

DC or AC, in single or multi-wire.  
350°C for 2 hours to obtain diffusible hydrogen 5 ml/100 gr max.

## ANALIZA CHIMICA A METALULUI DEPUȘ % / ALL-WELD METAL CHEMICAL ANALYSIS %

Sarma/Wire	C	Mn	Si	S	P	Cu	Ni	Cr	Mo
AS 37 LN	0.05 - 0.12	1.3 - 1.7	0.2 - 0.4	≤ 0.025	≤ 0.025	≤ 0.30	-	-	-
AS 36	0.05 - 0.12	1.4 - 1.9	0.2 - 0.4	≤ 0.025	≤ 0.025	≤ 0.30	-	-	-
AS 40	0.05 - 0.12	1.4 - 1.9	0.2 - 0.4	≤ 0.025	≤ 0.025	≤ 0.30	-	-	0.4 - 0.6
AS 40B	0.05 - 0.12	1.2 - 1.6	0.2 - 0.4	≤ 0.020	≤ 0.020	≤ 0.30	-	-	0.4 - 0.65

## CARACTERISTICI MECANICE / MECHANICAL PROPERTIES

Sarma/Wire	Tratament termic/Heat treatment	Rm N/mm <sup>2</sup>	Rs N/mm <sup>2</sup>	E % 5d	Kv J -40°C	Kv J -51°C
AS 37 LN	Stare sudata/As welded	540 - 640	≥ 460	≥ 24	≥ 60	
AS 37 LN	620°C x 1h	510 - 610	≥ 430	≥ 26	≥ 70	
AS 36	Stare sudata/As welded	550 - 650	≥ 460	≥ 24	≥ 50	≥ 50
AS 36	620°C x 1h	520 - 610	≥ 430	≥ 26	≥ 60	≥ 60
AS 40	Stare sudata/As welded	580 - 690	≥ 500	≥ 22	≥ 50	≥ 27
AS 40	620°C x 1h	560 - 650	≥ 500	≥ 22	≥ 50	≥ 27
AS 40B	Stare sudata/As welded	590 - 690	≥ 520	≥ 22	≥ 100	≥ 60
AS 40B	620°C x 1h	570 - 690	≥ 500	≥ 22	≥ 90	≥ 50

## AMBALARE STANDARD / STANDARD PACKING

Sac/Bag	25 kg	W000280315					
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Datele mentionate pot fi modificate fara a notifica prealabila. / The above data may change without prior notice.

### CLASIFICARE / STANDARDS

EN 760:	SA FB 1 55 AC H 5
EN 756:	S46 6 FB S3Si (AS37LN) - S 50 6 FB S3 Ni 1Mo (AS61A) S 50 5 FB S0 (AS67) - S 46 6 FB S2 Ni2 (FREZAL 35 Ni2)
AWS A5.17:	F7A8-EH12K (AS37LN) - F7AP8-EC1 (SUBCORED 31HD)
AWS A5.23:	F8A8-EG-G (AS67) - F8A8-ENI2-Ni2 (FREZAL 35 Ni2)

### AUTORIZARI / APPROVALS

With FREZAL 35 Ni2: **RINA**

### CARACTERISTICI PRINCIPALE

Flux aglomerat bazic destinat sudarii otelurilor carbon si slab aliate in unul sau mai multe straturi, folosind una sau mai multe sarme. Metalul depus are foarte bune caracteristici mecanice la temperatura joasa. Desprinderea buna a zgurii in stratul de radacina.

### MAIN FEATURES

Agglomerated basic flux suitable for carbon and low alloy steels welding, in single or multipass technique and single or multiwires applications. With good impact values at low temperatures. Good slag removal even in root pass.

### DOMENII DE APLICATIE

Cazangerie;  
Constructii metalice.

### MAIN APPLICATIONS

Boiler works;  
Structural steelworks.

### CONSTITUENȚI PRINCIPALI % (Valori tipice) / MAIN CONSTITUENTS % (Typical values)

SiO<sub>2</sub> = 15      MgO = 28      Indice de bazicitate / Basicity Index: 2.7 ca.  
Mn = 4      CaF<sub>2</sub> = 25      CaO = 18      (in acord cu Boniszewski / according to Boniszewski)

### DEPOZITARE - CALCINARE

DC sau AC, cu una sau mai multe sarme pana la 1000A pe sarma.  
350°C pentru 2 ore pentru obtinerea H<sub>DIF</sub> 5 ml/100 gr max.

### STORAGE - REBAKING

DC or AC, in single or multi-wire up to 1000A per wire.  
350°C for 2 hours to obtain diffusible hydrogen 5 ml/100 gr max.

### ANALIZA CHIMICA A METALULUI DEPUȘ / ALL-WELD METAL CHEMICAL ANALYSIS %

Sarma/Wire	C	Mn	Si	S	P	Cu	Ni	Cr	Mo
AS 37 LN	0.05 - 0.10	1.40 - 1.90	0.20 - 0.40	≤ 0.025	≤ 0.025	≤ 0.30	-	-	-
AS 67	0.05 - 0.10	1.30 - 1.70	0.20 - 0.40	≤ 0.025	≤ 0.025	≤ 0.30	0.70 - 1.00	-	0.20 - 0.30
FREZAL 35 Ni2	≤ 0.12	≤ 1.60	≤ 0.80	≤ 0.025	≤ 0.025	≤ 0.30	2.00 - 2.90	-	-
SUBCORED 31 HD	0.05 - 0.10	1.50 - 1.80	0.20 - 0.50	≤ 0.025	≤ 0.025	≤ 0.30	-	-	-

### CARACTERISTICI MECANICE / MECHANICAL PROPERTIES

Sarma/Wire	Treatment termic/Heat treatment	Rm N/mm <sup>2</sup>	Rs N/mm <sup>2</sup>	E % 5d	Kv J -40°C	Kv J -51°C
AS 37 LN	Stare sudata/As welded	540 - 620	≥ 450	≥ 24	≥ 90	≥ 50
AS 67	Stare sudata/As welded	590 - 660	≥ 500	≥ 22	≥ 60	≥ 30
FREZAL 35 Ni2	Stare sudata/As welded	560 - 660	≥ 450	≥ 22	-	≥ 100
SUBCORED 31 HD	Stare sudata/As welded	480 - 650	≥ 400	≥ 25	-	≥ 60
SUBCORED 31 HD	620°C x 1h	480 - 650	≥ 400	≥ 25	-	≥ 60

### AMBALARE STANDARD / STANDARD PACKING

Sac/Bag	25 kg	W000280316					
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Datele mentionate pot fi modificate fara o notificare prealabila. / The above data may change without prior notice.

# FLUX AS 630

FLUX AGLOMERAT PENTRU SUDARE / SUBARC AGGLOMERATED FLUX



## CLASIFICARE / STANDARDS

EN 760:	SA FB 1 55 AC H 5
EN 756:	S46 6 FB S3Si (AS37LN) - S 50 4 FB S2Mo (AS40A) S 50 6 FB S0 (AS67) - S 42 6 FB S2 Ni1 (FREZAL 35 Ni) - S 50 6 FB S3Ni1Mo (AS61A)
AWS A5.17:	F7AP8-EH12K (AS37LN) - F7AP8-EC1 (SUBCORED 31HD)
AWS A5.23:	F8AP8-EG-G (AS67) - F8P2-EB2-B2 (ASCr 1 Mo) F8P4-EB3-B3 (ASCr2Mo)-F7A8-ENi1-Ni1 (FREZAL 35 Ni) F8AP4-EA2-A2 (AS40A)

## AUTORIZARI / APPROVALS

With AS 37LN:	TÜV; GL
With AS 40A:	TÜV
With AS Cr1Mo:	TÜV
With AS Cr2Mo:	TÜV

## CARACTERISTICI PRINCIPALE

Flux aglomerat fluorid-bazic destinat sudarii otelurilor cu granulatie fina, a otelurilor criogenice si a otelurilor rezistente la imbatranire. Datorita comportamentului neutru fata de siliciu si mangan, permite utilizarea sarmelor cu continut ridicat de Si si Mn (AS37LN). AS630 este in particular recomandat pentru sudarea in tandem si sudarea cu mai multe sarme. Cu sarma AS37LN, acest flux poate fi folosit pentru sudarea componentelor off-shore. Metalul depus in combinatie cu sarmele corespunzatoare satisface cerinte de inalta rezistenta la temperaturi criogenice. AS630 produce o zgura subtire, compacta, fiind utilizat si la sudarea componentelor cu diametre mici. Determina obtinerea unei suduri uniforme, fara pregatire anterioara.

## MAIN FEATURES

Agglomerated fluoride-basic flux, preferably used for welding high-strength fine grain structural steels, as well as cryogenic steels and steels resistant to ageing. Owing to its neutral behaviour as regards silicon and manganese, wire electrodes having higher percentages of Si and Mn (AS37LN) should be used. AS630 is particularly suited for tandem and multi-wire welding. With AS37LN wire electrodes, this flux is suitable to be employed for welding off-shore components. The weld metal, produced in combination with corresponding wire electrodes, meets high toughness requirements at cryogenic temperatures. AS630 produces a short slag, i.e. girth seams of components having a small diameter can be welded without danger of the slag running off. It produces uniform welds without undercut.

## DOMENII DE APLICATIE

Cazangerie;  
Constructii metalice;  
Off-shore.

## MAIN APPLICATIONS

Boiler works;  
Structural steelworks;  
Off-shore applications.

## CONSTITUENȚI PRINCIPALI % (Valori tipice) / MAIN CONSTITUENTS % (Typical values)

SiO<sub>2</sub> + TiO<sub>2</sub> = 15      CaO + MgO = 40  
Al<sub>2</sub>O<sub>3</sub> + MnO = 20      CaF<sub>2</sub> = 25

Indice de bazicitate / Basicity Index: 3.1 ca.  
(in acord cu Boniszewski / according to Boniszewski)

## DEPOZITARE - CALCINARE

DC sau AC, cu una sau mai multe sarme pana la 1000A pe sarma.  
350°C pentru 2 ore pentru obtinerea H<sub>diff</sub> 5 ml/100 gr max.

## STORAGE - REBAKING

DC or AC, in single or multi-wire up to 1000A per wire.  
350°C for 2 hours to obtain diffusible hydrogen 5 ml/100 gr max.

## ANALIZA CHIMICA A METALULUI DEPUȘ % / ALL-WELD METAL CHEMICAL ANALYSIS %

Sarma/Wire	C	Mn	Si	S	P	Cu	Ni	Cr	Mo
AS 37 LN	0.05 ÷ 0.12	0.13 ÷ 1.70	0.20 ÷ 0.40	≤ 0.025	≤ 0.025	≤ 0.30	-	-	-
AS 40A	0.05 ÷ 0.12	0.70 ÷ 1.00	0.10 ÷ 0.20	≤ 0.025	≤ 0.025	≤ 0.30	-	-	0.40 - 0.60
AS 67	0.05 ÷ 0.12	1.10 ÷ 1.50	0.20 ÷ 0.40	≤ 0.025	≤ 0.025	≤ 0.30	0.70 ÷ 1.00	-	0.20 ÷ 0.30
AS Cr1Mo	0.05 ÷ 0.12	0.70 ÷ 1.00	0.10 ÷ 0.30	≤ 0.025	≤ 0.025	≤ 0.30	-	1.20 ÷ 1.50	0.40 ÷ 0.60
AS Cr2Mo	0.05 ÷ 0.12	0.60 ÷ 0.90	0.10 ÷ 0.30	≤ 0.025	≤ 0.025	≤ 0.30	-	2.40 ÷ 2.60	0.90 ÷ 1.10
FREZAL 35 Ni	0.04 ÷ 0.08	1.00 ÷ 1.40	0.20 ÷ 0.40	≤ 0.025	≤ 0.025	≤ 0.30	0.75 ÷ 1.10	-	≤ 0.35
SUBCORED 31 HD	0.05 ÷ 0.10	1.50 ÷ 1.80	0.20 ÷ 0.50	≤ 0.025	≤ 0.025	≤ 0.30	-	-	-

Datele mentionate pot fi modificate fara o notificare prealabila. / The above data may change without prior notice.

**CARACTERISTICI MECANICE / MECHANICAL PROPERTIES**

Sarma/Wire	Tratament termic/Heat treatment	Rm N/mm <sup>2</sup>	Rs N/mm <sup>2</sup>	E % 5d	Kv J -40°C	Kv J -62°C
AS 37 LN	Stare sudata/As welded	540 - 640	≥ 450	≥ 24	≥ 100	≥ 70
AS 37 LN	620°C x 1h	510 - 610	≥ 430	≥ 26	≥ 130	≥ 100
AS 40A	Stare sudata/As welded	550 - 650	≥ 480	≥ 20	≥ 60	-
AS 40A	620°C x 1h	550 - 650	≥ 480	≥ 20	≥ 27	-
AS 67	Stare sudata/As welded	570 - 670	≥ 500	≥ 22	≥ 70	≥ 40
AS 67	620°C x 1h	570 - 670	≥ 490	≥ 22	-	≥ 35
AS Cr2Mo	620°C x 1h	550 - 690	≥ 480	≥ 20	≥ 54 (-29yc)	-
AS Cr1Mo	620°C x 1h	550 - 690	≥ 480	≥ 24	≥ 60 (-29yC)	-
AS Cr2Mo	620°C x 8h	550 - 690	≥ 480	≥ 20	≥ 54	-
FREZAL 35 Ni2	Stare sudata/As welded	530 - 630	≥ 450	≥ 22	≥ 70	≥ 50
SUBCORED 31 HD	Stare sudata/As welded	480 - 650	≥ 400	≥ 25	-	≥ 60
SUBCORED 31 HD	620°C x 1h	480 - 650	≥ 400	≥ 25	-	≥ 60

**AMBALARE STANDARD / STANDARD PACKING**

Sac/Bag	25 kg	W000280317					
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Datele mentionate pot fi modificate fara o notificare prealabila. / The above data may change without prior notice.

# FLUX CN 100

FLUX AGLOMERAT PENTRU SUDARE / SUBARC AGGLOMERATED FLUX



## CLASIFICARE / STANDARDS

EN 760: S A AB 2789Cr AC

## AUTORIZARI / APPROVALS

with AS308L: TÜV  
with AS316L: TÜV

## CARACTERISTICI PRINCIPALE

Flux aglomerat semibazic pentru sudarea otelurilor inoxidabile cu exceptia celor stabilizate cu Ti sau Nb. Recomandat pentru sudarea cap la cap, de colt si pentru incarcare cu unul sau mai multe straturi.

Desprindere buna a zgurii chiar si cand aceasta este calda.

Are un continut scazut de Cr.

## MAIN FEATURES

Agglomerated semibasic flux for welding stainless steels, except Ti or Nb stabilized stainless steels. Suitable for single-pass or multipass welding in fillet weld, butt weld and weld overlay.

Good slag removal even when hot.

Slightly additive in Cr.

## DOMENII DE APLICATIE

Industria alimentara;

Industria chimica si petrochimica;

Rezervoare si recipienti sub presiune;

Incarcare.

## MAIN APPLICATIONS

Food industry;

Chemical and petrochemical applications;

Tanks, pressure vessels;

Facings.

## CONSTITUENȚI PRINCIPALI % (Valori tipice) / MAIN CONSTITUENTS % (Typical values)

CaO + CaF<sub>2</sub> + MgO = 41

MnO + FeO = 4

Indice de bazicitate / Basicity Index: 1.2 ca.

SiO<sub>2</sub> = 29

Al<sub>2</sub>O<sub>3</sub> + TiO<sub>2</sub> + ZrO<sub>2</sub> = 23

(in acord cu Boniszewski / according to Boniszewski)

## DEPOZITARE - CALCINARE

DC pana la 700 A.

350°C pentru minim 2 ore.

## STORAGE - REBAKING

DC up to 700 A.

350°C for 2 hours min.

## ANALIZA CHIMICA A METALULUI DEPUȘ % / ALL-WELD METAL CHEMICAL ANALYSIS %

Sarma/Wire	C	Mn	Si	P	S	Cr	Ni	Mo	Nb	Cu	N
AS 308L	≤ 0.04	1.3 - 2.0	0.6 - 1.0	≤ 0.03	≤ 0.02	19 - 21	9 - 11	–	–	≤ 0.35	0.05 - 0.07
AS 309L	≤ 0.04	1.3 - 2.0	0.6 - 1.0	≤ 0.03	≤ 0.02	22.5 - 24	12.5 - 14	–	–	≤ 0.35	0.08 - 0.10
AS 316L	≤ 0.04	1.3 - 2.0	0.6 - 1.0	≤ 0.03	≤ 0.02	18 - 20	11 - 13	2 - 3	–	≤ 0.35	0.05 - 0.07

## CARACTERISTICI MECANICE / MECHANICAL PROPERTIES

Sarma/Wire	Tratament termic/Heat treatment	Rm N/mm <sup>2</sup>	Rs N/mm <sup>2</sup>	E % 5d	Kv J	Kv J -196°C
AS 308L	Stare sudata/As welded	≥ 520	≥ 340	≥ 35		≥ 50
AS 309L	Stare sudata/As welded	≥ 520	≥ 380	≥ 30		≥ 70
AS 316L	Stare sudata/As welded	≥ 520	≥ 400	≥ 30		≥ 40

## AMBALARE STANDARD / STANDARD PACKING

Sac/Bag	25 kg	W000280313					
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Datele mentionate pot fi modificate fara o notificare prealabila. / The above data may change without prior notice.

### CLASIFICARE / STANDARDS

EN 760: S A FB 2 53 AC

### AUTORIZARI / APPROVALS

with LEXAL S 22.9.3N: RINA, GL, DNV, LRS  
 with AS 308L: TÜV  
 with AS 309L Mo: RINA  
 with AS 309L: TÜV  
 with AS 316L: TÜV  
 with AS 347: TÜV

### CARACTERISTICI PRINCIPALE

Flux aglomerat bazic pentru sudarea otelurilor inoxidabile stabilizate cu titan si niobiu si pentru sudarea otelurilor duplex. Poate fi utilizat pentru sudarea multistrat in cazul sudurilor cap la cap, sudurilor de colt si in cazul incarcarii. Permite atingerea unor viteze mari de sudare in cazul tablelor subtiri, in una sau mai multe treceri. Zgura se detaseaza foarte usor chiar si atunci cand este calda.

### MAIN FEATURES

Agglomerated basic flux for welding stainless steels, also Ti or Nb stabilized types and duplex. Suitable for multipass welding in fillet weld, butt weld and weld overlay. It allows high welding speeds on thin thicknesses in single or multipass. Good slag removal even when hot.

### DOMENII DE APLICATIE

Industria alimentara;  
 Industria chimica si petrochimica;  
 Rezervoare, recipienti sub presiune;  
 Incarcare / Placare.

### MAIN APPLICATIONS

Food industry;  
 Chemical and petrochemical applications;  
 Tanks, pressure vessels;  
 Facing / Weld overlay.

### CONSTITUENȚI PRINCIPALI % (Valori tipice) / MAIN CONSTITUENTS % (Typical values)

CaO + CaF<sub>2</sub> + MgO = 54      SiO<sub>2</sub> = 7  
 Al<sub>2</sub>O<sub>3</sub> = 37

Indice de bazicitate / Basicity Index: 2.2 ca.  
 (in acord cu Boniszewski / according to Boniszewski)

### DEPOZITARE - CALCINARE

DC sau AC, pana la 900 A. (DC+, CV pentru valori mici ale curentului). 350° C pentru minim 2 ore

### STORAGE - REBAKING

DC or AC, up to 900 A. (DC+, CV for low current)  
 350° C for 2 hours min.

### ANALIZA CHIMICA A METALULUI DEPUȘ / ALL-WELD METAL CHEMICAL ANALYSIS %

Sarma/Wire	C	Mn	Si	P	S	Cr	Ni	Mo	Nb	Cu	N	Ferrite
AS 308L	≤ 0.04	1.0 - 2.0	0.3 - 0.8	≤ 0.03	≤ 0.02	18.0 - 21.0	9 - 11	-	-	≤ 0.35	-	-
AS 309L	≤ 0.04	1.0 - 2.0	0.3 - 0.8	≤ 0.03	≤ 0.02	22.5 - 24.0	12.5 - 14	-	-	≤ 0.35	-	-
AS 316L	≤ 0.04	1.0 - 2.0	0.3 - 0.8	≤ 0.03	≤ 0.02	17.5 - 19.5	11 - 13	2 - 3	-	≤ 0.35	0.04 - 0.06	-
AS 347	≤ 0.08	1.0 - 2.0	0.3 - 0.8	≤ 0.03	≤ 0.02	18.0 - 21.0	9 - 11	-	(4)	≤ 0.35	0.04 - 0.06	-
LEXAL S22.993N	≤ 0.04	1.1 - 1.5	0.5 - 0.8	≤ 0.03	≤ 0.02	21.3 - 23.5	7.5 - 9.5	2.5 - 3.5	-	-	0.12 - 0.18	(1)(2)(3)
AS 309 Mo	≤ 0.04	1.0 - 2.0	0.3 - 0.8	≤ 0.03	≤ 0.02	22.0 - 25.0	12 - 14	2 - 3	-	≤ 0.20	-	-

(1) In acord cu ESPY AWS A5.4-92: 40% (valoare tipica) 35 - 65% (valoare garantata);

According to ESPY AWS A5.4-92: 40% (typical value) 35 - 65% (guaranteed values).

(2) PREN (Pitting Resistant Equivalent Number) = % Cr + 3.3 x % Mo + 16 x % N = 35 (Valoare tipica / typical value).

(3) Pitting Corrosion Test (according to ASTM G48 Method A / condition test: 24h exposure at +20° C).

(4) Nb: 10 x % C min. - 1.0% max.

### CARACTERISTICI MECANICE / MECHANICAL PROPERTIES

Sarma/Wire	Tratament termic/Heat treatment	Rm N/mm <sup>2</sup>	Rs N/mm <sup>2</sup>	E % 5d	Kv J -50°C	Kv J -196°C
AS 308L	Stare sudata/As welded	≥ 520	≥ 340	≥ 35	-	≥ 50
AS 309L	Stare sudata/As welded	≥ 520	≥ 380	≥ 30	-	≥ 70
AS 316L	Stare sudata/As welded	≥ 520	≥ 440	≥ 30	-	≥ 40
AS 347	Stare sudata/As welded	≥ 520	≥ 430	≥ 30	-	≥ 35
LEXAL S22.993N	Stare sudata/As welded	≥ 740	≥ 570	≥ 26	≥ 60	-
AS 309 Mo	Stare sudata/As welded	≥ 550	≥ 400	≥ 30	-	-

### AMBALARE STANDARD / STANDARD PACKING

Sac/Bag	25 kg	W000280318				

Datele mentionate pot fi modificate fara o notificare prealabila. / The above data may change without prior notice.

SARME PLINE PENTRU OTELURI CARBON SI SLAB ALIATE /  
SOLID WIRES FOR CARBON AND LOW ALLOY STEELS



TIP TYPE	COMPOZITIA CHIMICA TIPICA SARMA % TYPICAL CHEMICAL WIRE COMPOSITION %										CLASIFICARE/CLASSIFICATION			AUTORIZARI/ APPROVALS
	C	Mn	Si	S ≤	P ≤	Cr	Ni	Mo	Cu	N ≤	AWS A5.17 A5.23*	DIN 8557 8575*	EN 756	
AS 25	0.06	0.50	0.10	0.020	0.020						EL12	S1	S1	TÜV
AS 35	0.10	1.00	0.13	0.020	0.020						EM12K	S2	S2	TÜV-DB
AS 37LN	0.10	1.70	0.30	0.015	0.015					70 ppm	EH12K		S3Si	TÜV
AS 36	0.12	2.00	0.10	0.020	0.020						EH14	S4	S4	TÜV-DB
AS 40A	0.10	1.00	0.10	0.020	0.020			0.50			EA2*	S2Mo	S2Mo	TÜV
AS 40	0.12	2.00	0.10	0.020	0.020			0.50			EA3*	S4Mo	S4Mo	TÜV
AS 48	0.10	1.00	0.25	0.020	0.020	0.30	0.75		0.40		EG*		S0	
AS 67	0.10	1.50	0.20	0.020	0.020		0.90	0.25		70 ppm	EG*		S0	
AS Cr1Mo	0.12	0.80	0.15	0.020	0.020	1.40		0.50			EB2*			
AS Cr2Mo	0.12	0.50	0.08	0.020	0.020	2.50		1.00			EB3*	UP*51CrMo2		
AS 35M	0.10	1.00	0.10	0.020	0.020				0.35		EM12		S2	
FREZAL 35Ni	0.12	1.00	0.20	0.020	0.020		1.00	0.15	0.35		ENi1		S2Ni1	
FREZAL 35Ni2	0.10	1.00	0.10	0.020	0.020		2.50				ENi2			

SARME PLINE PENTRU OTELURI INOXIDABILE /  
SOLID WIRES FOR STAINLESS STEELS

TIP TYPE	CLASIFICARE CLASSIFICATION AWS A5.9 AWS 5.14*	EN 12072	COMPOZITIA CHIMICA TIPICA / SARMA % TYPICAL CHEMICAL WIRE COMPOSITION %						
			C	Si	Mn	Cr	Ni	Mo	Nb
AS 308L	ER 308L	S 19.9 L	0.03	0.4	1.7	20	10		
AS 309L	ER 309L	S 23.12 L	0.03	0.4	1.7	24	13		
AS 309LMo	ER 309LMo		0.03	0.4	1.7	24	13	2.5	
AS 316L	ER 316L	S 19.12.3 L	0.03	0.4	1.7	19	12	2.5	
AS 347	ER 347	S 19.9 Nb	0.04	0.4	1.7	20	10	0.55	
LEXAL S22.993N (DUPLEX)	ER 2209 (Werkstoff N. 1.4462)	S 22903 L	0.03	0.5	1.6	22	8	3	N 0.15