

# Shield Arc® HYP+

SMAW

## CLASSIFICATION

AWS A5.5	E 7010-P1	A-Nr	1
ISO 2560-A	E 42 2 Mo C 2 5	F-Nr	3
		9606 FM	1

## GENERAL DESCRIPTION

Cellulosic electrode for vertical down pipe welding  
 Suitable for pipe with strengths X52 through X65  
 Cleaner weld puddle  
 Very low tendency to peel or flake off under high electrode pressure in tight joints  
 Low susceptibility to wagon tracks, windows and pinholes  
 Very low spatter and smoother arc action

## APPROVALS

TÜV	ABS
+	+

## WELDING POSITIONS (ISO/ASME)



PJ/5Gd

## CURRENT TYPE

DC +

## CHEMICAL COMPOSITION (W%), TYPICAL, ALL WELD METAL

C	Mn	Si	Mo	V
0.13-0.17	0.49-0.63	0.08-0.18	0.27-0.31	<0.01

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Condition	Yield strength (N/mm <sup>2</sup> )	Tensile strength (N/mm <sup>2</sup> )	Elongation (%)	Impact ISO-V(J)	
				-20°C	-29°C
Required: AWS A5.5 ISO 2560-A Typical values	min. 415 min. 420 435-525	min. 490 500-640 525-635	min. 22 min. 20 24	min. 47	min. 27 50

## PACKAGING AND AVAILABLE SIZES

	Diameter (mm)	3.2	4.0	4.8
	Length (mm)	355	355	355
Metal can	Pieces / unit	873	561	388
	Net weight/unit (kg)	22.7	22.7	22.7

Identification Imprint: 7010-P1 Tip Color: none

Shield Arc® HYP+: rev. C-EN07-01/02/16

All information in this data sheet is accurate to the best of our knowledge at the time of printing. Please refer to [www.lincolnelectric.eu](http://www.lincolnelectric.eu) for any updated information.  
 Fumes: Safety Data Sheets (SDS) are available on our website.

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## EXAMPLES OF MATERIALS TO BE WELDED

Steel grades/Code	Type
<b>Pipe material</b>	
EN 10208-2	L360 , L415, L445
EN 10216-1 / 10217-1	P355
API 5LX	X52, X56, X60, X65
Gaz de France	X52, X63

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## CALCULATION DATA

Sizes Diam. x length (mm)	Current range (A)	Current type	Weight/ 1000 pcs (kg)
3.2x355	75-130	DC+	26
4.0x355	90-185	DC+	40.4
4.8x355	140-225	DC+	58.5

\*Stub end 35mm

## WELDING PARAMETERS, OPTIMUM FILL PASSES

Diameter (mm)	Welding positions PJ/5Gdown
3.2	75-130A
4.0	90-185A
4.8	140-225A

## REMARKS / APPLICATION ADVICE

Preheating pipe material from L380 to L450 (X56 to X65) required (acc.EN 1011-1).  
 Pipeclamps to be removed after finishing root pass, start welding hot pass (within 5 min) after root pass  
 Use electrodes directly from metal Metal cans  
 Use Fleetweld 5P+ for lower hardness in the root pass.