

# Gonia 180

## CLASSIFICATION

AWS A5.1 : E7024  
ISO 2560-A : E 42 0 RR 73

## GENERAL DESCRIPTION

Rutile electrode for fillet welds and horizontal V- and X-welds  
190% recovery  
Very high welding speed  
Smooth weld appearance  
Self releasing slag

## WELDING POSITIONS (ISO/ASME)



PA/1G



PB/2F



PC/2G

## CURRENT TYPE

AC / DC -

## APPROVALS

ABS	BV	CRS	DNV	GL	LR	RINA	RMRS
2	2Y	2Y	2	2Y	2	2	2

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

C	Mn	Si
0.07	1.0	0.35

## 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) 0°C
Required: AWS A5.1 ISO 2560-A Typical values	min. 399 min. 420 450	min. 490 500-640 525	min. 17 min. 20 27	not required min. 47 75
AW				

## PACKAGING AND AVAILABLE SIZES

	Diameter (mm)	4.0	5.0	6.3
	Length (mm)	450	450	450
Unit: carton box	Pieces / unit	55	35	23
	Net weight/unit (kg)	5.8	5.8	5.7

Identification Imprint: 7024/ GONIA 180 Tip Color: blue

Gonia 180: rev. EN 24

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## EXAMPLES OF MATERIALS TO BE WELDED

Steel grades/Code	Type
General structural steels	
EN 10025	S185, S235, S275, S355
Ship plates	
ASTM A 131	Grade A, B, D, AH32 to DH36
Boiler & pressure vessel steel	
EN 10028-2	P235, P265, P295, P355
Fine grained steels	
EN 10025 part 3	S275, S355
EN 10025 part 4	S275, S355

## CALCULATION DATA

Sizes		Current type	Arc time - per electrode at max. current - (S)*	Energy E(kJ)	Dep. rate H(kg/h)	Weight/ 1000 pcs (kg)	Electrodes/ kg weldmetal B	kg electrodes/ kg weldmetal 1/N
Diam. x length (mm)	Current range (A)							
4.0x450	200-240	AC	78	515	3.4	100.0	14	1.35
5.0x450	280-300	AC	85	816	4.9	157.7	9	1.35
6.3x450	350-375	AC	102	1320	6.5	248.0	6	1.35

\*Stub end 35mm

## WELDING PARAMETERS, OPTIMUM FILL PASSES

Diameter (mm)	Welding positions		
	PA/1G	PB/2F	PC/2G
4.0	210A	200A	200A
5.0	300A	280A	
6.3	390A	360A	

## REMARKS / APPLICATION ADVICE

High yield strength steels such as S355, P355 and DH36 preheat according EN 1011-1