



GENERAL CHARACTERISTICS:

ARCTEC® 2780 is an all position, gas shielded, flux cored wire for joining dissimilar steels. It produces a smooth weld bead and can be used in all positions observing recommended operating parameters. Shielding gas is required.

APPLICATIONS:

ARCTEC® 2780 is designed for joining equipment components of manganese, medium carbon steels and steels of dissimilar composition. For joining bucket shells, lips and teeth. For shaft build up and cladding of carbon steel with austenitic stainless steel. Recommended for installation and build up of pipeline ditcher segments and installation of ARCTEC® WEARPLATES.

MECHANICAL PROPERTIES:

Tensile Strength 85400psi(589Mpa)	Yield Strength 66500psi(459Mpa)	Elongation 37%-2"
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CHEMICAL COMPOSITION:

This alloy is comprised of the following elements:

C Mn Si P S Cr Ni Fe

OPERATING PARAMETERS:

WELDING PROCESS: FCAW
 POLARITY: DC Reverse
 SHIELDING GAS: 75% Argon/25% CO₂ recommended
 100% CO₂ can be used

Optimum Operating Parameters					
Diameter	Position	Stickout	Wire Feed Speed	Amps	Volts
.045"	Flat	1/2-3/4"(12.5-19mm)	450"/min (191mm/sec)	180-200	25-27
.045"	Horizontal	1/2-3/4"(12.5-19mm)	450"/min (191mm/sec)	180-200	24-32
.045"	Vertical up	1/2-3/4"(12.5-19mm)	325"/min (138mm/sec)	150-170	24-26
.045"	Overhead	1/2-3/4"(12.5-19mm)	425"/min (180mm/sec)	175-195	25-28
1/16"	Flat	5/8-1"(15-25mm)	264"/min (112mm/sec)	220-240	24-31
1/16"	Horizontal	5/8-1"(15-25mm)	235"/min (99mm/sec)	200-220	24-29
1/16"	Vertical up	5/8-1"(15-25mm)	220"/min (93mm/sec)	190-210	24-27
1/16"	Overhead	5/8-1"(15-25mm)	235"/min (99mm/sec)	170-270	24-29

OPERATING PARAMETERS: continued on Page 2.

CALGARY FAX:(403)-250-7682	EDMONTON: (780)-484-4896	VANCOUVER: (604)-596-2940	WINNIPEG: (204)-663-7955
PHONE:(403)-250-9355	(780)-484-3304	(604)-596-6207	(204)-663-9182

The seller makes no warranties, express or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose, except as expressly stated in seller's contract, delivery slip or invoice form. Technical data and suggested application are provided to assist you in making your own evaluations and decisions and should not be interpreted as expressed or implied warranties. Mechanical properties are typical or average values obtained by testing and comparing many heats of the same alloys. Minimum and maximum values are noted accordingly and are not intended for specific purposes.

Operating Range				
Diameter	Position	Stickout	Amps	Volts
.045"	Flat	1/2-3/4"(12.5-19mm)	135-250	24-32
.045"	Horizontal	1/2-3/4"(12.5-19mm)	135-250	24-32
.045"	Vertical up	1/2-3/4"(12.5-19mm)	135-200	24-26
.045"	Overhead	1/2-3/4"(12.5-19mm)	155-200	25-28
1/16"	Flat	5/8-1"(15-25mm)	170-300	24-31
1/16"	Horizontal	5/8-1"(15-25mm)	170-270	24-29
1/16"	Vertical up	5/8-1"(15-25mm)	170-230	24-27
1/16"	Overhead	5/8-1"(15-25mm)	170-270	24-29

Welding Data

	.045" (1.20 mm)				1/16" (1.60 mm)			
Amps	130	165	190	220	170	210	250	300
Volts	25	26	28	30	25	27	28	29
Wire Feed Speed inch/min	227	341	445	567	154	193	243	321
Deposition Rate lbs/hour	4.25	6.14	8.08	10.24	5.34	6.89	8.57	11.43

STANDARD SIZE AND PACKAGING

Size		Packaging
.045" 1.2mm	1/16" 1.5mm	12" spools 15 Kg