

ARCTEC® FCS 558



a quality welding alloy

GENERAL CHARACTERISTICS:

ARCTEC® FCS 558 is an excellent general purpose chromium carbide hardfacing alloy which produces a martensitic grain structure, that provides good wear resistance where a combination of abrasive wear and impact prevails. The weld metal deposit has good metal to metal wear properties at elevated temperatures and is non-machinable. ARCTEC® FCS 558 operates on DC reverse polarity over a wide range of voltages and amperages and may be used with short-arc or spray-arc welding to a maximum deposit thickness of 3 layers. Some stress relieving (surface checking) may occur during cooling.

APPLICATIONS:

ARCTEC® FCS 558 is recommended for applications where abrasion resistance under moderate impact load is required. Used for hard overlay on carbon, low alloy, manganese and stainless steels.

MECHANICAL PROPERTIES:

Layers	Typical Hardness	Shielding Gas	Flow Rate	Method
1	56-58HRC	75% Argon/25% CO ₂	30-35 CFH	Short-arc
2	56-59HRC	75% Argon/25% CO ₂	30-35 CFH	Short-arc
1	56-58HRC	95% Argon/5% Oxygen	35-40 CFH	Spray-arc
2	56-59HRC	95% Argon/5% Oxygen	35-40 CFH	Spray-arc

CHEMICAL COMPOSITION:

This alloy is comprised of the following elements:

C Mo Si Cr V Mn Fe

OPERATING PARAMETERS:

WELDING PROCESS: FCAW

POLARITY: DC Reverse

SHIELDING GAS AND FLOW RATE: Short-arc 75% Argon/25% CO₂ at 30-35 CFH

Spray-arc 95% Argon/5% Oxygen at 35-40 CFH

Operating Range					
Diameter	Method	Position	Wire Feed Speed	Amps	Volts
045"	Short-arc	Flat	225"/min (95mm/sec)	80-200	16-23
.045"	Short-arc	Horizontal	225"/min (95mm/sec)	80-200	15-19
045"	Short-arc	Overhead	212"/min (90mm/sec)	75-175	16-24
.045"	Short-arc	Vertical down	225"/min (95mm/sec)	80-150	16-19
045"	Spray-arc	Flat only	225"/min (95mm/sec)	220-250	29-33

STANDARD SIZE AND PACKAGING:

Size	Packaging
.045" 1.2mm	12"spools 11.3 Kg

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

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Subject to change without notice

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