

SM-3A

AWS A5.18 E70C-GM H4
 EN ISO 17632-A T42 4 ZMn M M21 1 H
 EN ISO 17632-B T49 4 T15-1 M A-U H5

Seamless metal cored wire for welding structural steels with Ar-CO₂ mixed gas.

GENERAL DESCRIPTION

SM-3A is designed for automated and manual welding of horizontal butt and fillet welds and can also be effectively used for all-position welding in the short-arc (dip transfer) range on inverter power sources with waveform programmes.

SM-3A consists mainly of metal flux fill which provides high deposition efficiency, fast deposition rates, and excellent fusion.

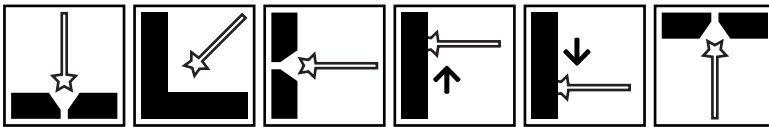
The unique seamless manufacturing process used to produce SM-3A maintains the very low hydrogen

levels (typically 2 ml/100 g), while the double copper coating improves protection, arc conductivity, and wire-feeding stability. Precise diameter and roundness of the wire make it ideal for robotic welding and applications with long conduit cables.

SM-3A produces minimal spatter, very little clean up is required, and the minimal surface silica allows multi-layer welding without de-slagging between passes.

SM-3A has Grade 4 Shipping Approvals.

WELDING POSITIONS



TYPE OF GAS FLOW:

Ar + 15 < CO₂ < 25%, (80%Ar / 20% CO₂ recommended). 20-25 l/min.

TYPICAL CHEMICAL COMPOSITION OF ALL-WELD-METAL (%)

Shield Gas	C	Si	Mn	P	S			
Ar+20%CO ₂	0.05	0.66	1.69	0.008	0.013			

DIFFUSABLE HYDROGEN CONTENT: ≤5 ML/100G (2.0 ML/100G TYPICAL)

TYPICAL MECHANICAL PROPERTIES OF WELD METAL

Yield and Tensile Strengths			Charpy Impact Test
Yield MPa	Tensile MPa	Elongation %	Charpy 2V-notch, (J) -40°C
444	546	30	126

GUIDANCE – AMPERE (DC+)

Wire Diameter	1.2 mm	1.4 mm	
Ampere	70-330	80-420	

PACKAGING INFORMATION

1.2mm x 5kg spool 1.4mm x 15kg spool
 1.2mm x 15kg spool 1.4mm x 250kg drum
 1.2mm x 250kg drum

SHIPPING APPROVALS

DNV-GL, LR, ABS, BV

REFERENCE

SM-3A, English