

HOBART® Self Shielded Tubular Wires

FABSHIELD® 4

AWS E70T-4

Drafts or moderate wind will not affect your weld when you're using this outstanding high-deposition, self-shielded flux-cored wire. It's designed specifically to desulfurize the weld metal and to resist cracking. You'll use it in both single- and multi-pass applications on mild and medium carbon steels.

Typical applications:

- heavy equipment repair
- industrial equipment repair
- machinery fabrication
- ship equipment

Typical weld metal properties

(Chem Pad):

Carbon	0.27
Manganese	0.73
Silicon	0.30
Phosphorus	0.011
Sulphur	0.005
Aluminum	1.42

Typical mechanical properties (AW):

Tensile Strength (psi)	94,600 (652 MPa)
Yield Strength (psi)	62,600 (432 MPa)
Elongation % in 2"	24%

Typical Charpy V-notch impact values:

Not applicable

Recommended welding procedures:

Dia.	Amps	Volts	Electrical Stickout
5/64" (2.0 mm)	290-370	29-31	1-3/4"-2-1/4"
3/32" (2.4 mm)	320-450	29-34	2-1/4"-2-3/4"
.120" (3.2 mm)	450-560	28-35	2-1/2"-3"

Shielding gas: None required

Type of current: DCEP

Approvals and conformances:

- AWS A5.20, E70T-4
- ASME SFA 5.20, E70T-4

FABSHIELD® 7027

AWS E70T-7

When the properties of the physical weld deposit must match the structural weldment application, you'll like the properties of Fabshield 7027. It's designed to give you peak performance at higher amperage and voltage settings while maintaining excellent arc stability and high deposition efficiency. You'll see fast travel speeds with a barium-free slag system that's fast-freezing. It's great for single- and multi-pass welds in flat and horizontal positions for many of your general fabrication needs.

Typical applications:

- barges
- general flat weld fabrication
- structural steel fabrication

Typical weld metal properties

(Chem Pad):

Carbon	0.33
Manganese	0.28
Silicon	0.05
Phosphorus	0.014
Sulphur	0.005
Aluminum	1.3

Typical mechanical properties (AW):

Tensile Strength (psi)	92,200 (636 MPa)
Yield Strength (psi)	63,200 (436 MPa)
Elongation % in 2"	23%

Typical Charpy V-notch impact values:

Not applicable

Recommended welding procedures:

Dia.	Amps	Volts	Electrical Stickout
5/64" (2.0 mm)	240-460	23-30	1"-2"
3/32" (2.4 mm)	240-560	27-32	1"-2"
7/64" (2.8 mm)	320-600	24-32	1"-2"

Shielding gas: None required

Type of current: DCEN

Approvals and conformances:

- AWS A5.20, E70T-7
- ASME SFA 5.20, E70T-7
- ABS E70T-7

FABSHIELD® XLR-8

AWS E71T-8JD H8

The Fabshield XLR-8 produces flat weld beads across a broad range of parameters and produces welds with excellent mechanical properties under a wide range of heat inputs. The Fabshield XLR-8 is capable of depositing X-Ray quality welds in all positions.

Typical applications:

- structural steel erection
- heavy equipment repair
- ship & barge construction

Typical weld metal properties

(Chem Pad):

Carbon	0.19
Manganese	0.51
Silicon	0.17
Phosphorus	0.009
Sulphur	0.006
Aluminum	0.51

Typical Mechanical Properties

(Aged 48 hr @ 200° F)	
Tensile Strength (psi)	84,100 (580 MPa)
Yield Strength (psi)	67,600 (466 MPa)
Elongation % in 2"	25%

Typical Charpy V-Notch Impact Value

(AW):	
Avg. at -20°F (-29°C)	40 ft.lb. (54J)
Avg. at -40°F (-40°C)	31 ft.lb. (42J)

Recommended welding procedures:

Dia.	Amps	Volts	Electrical Stickout
1/16" (1.6 mm)	140-300	19-25	1"
.072" (1.8 mm)	150-350	18-25	1"
5/64" (2.0 mm)	150-350	18-25	1 1/4"

Shielding gas: None required

Type of current: DCEN

Approvals and conformances:

- AWS E71T-8JD H8
- ASME SFA 5.20 E71T-8JD H8
- ABS 3YSA
- CWB E491T-8J H8

FABSHIELD® 21B

AWS E71T-11

You'll find this self-shielded flux-cored wire is easy to use for almost any general purpose application and in any position — flat, horizontal, vertical up and down, and overhead. It's great in single- or multi-pass welds, and particularly well-suited for fillet and lap welds on thin-gauge mild or galvanized steel. Fabshield 21B meets AWS side-bend requirements.

Typical applications:

- general fabrication
- light structurals
- machinery part fabrication
- prefab construction
- railroad car repair
- short-assembly welds
- tanks

Typical weld metal properties

(Chem Pad):

Carbon	0.31
Manganese	0.36
Silicon	0.18
Phosphorus	0.014
Sulphur	0.001
Aluminum	0.96

Typical mechanical properties (AW):

Tensile Strength (psi)	91,600 (632 MPa)
Yield Strength (psi)	64,900 (448 MPa)
Elongation % in 2"	22%

Typical Charpy V-notch impact values:

Not applicable

Recommended welding procedures:

Dia.	Amps	Volts	Electrical Stickout
.035" (0.9 mm)	55-120	17-20	1/4"-5/8"
.045" (1.2 mm)	80-220	13-20	1/4"-5/8"
1/16" (1.6 mm)	110-270	14-20	1/2"-3/4"
.068" (1.8 mm)	150-270	18-21	1/2"-3/4"
5/64" (2.0 mm)	125-300	15-22	3/4"-1"
3/32" (2.4 mm)	200-300	18-21	3/4"-1"

Shielding gas: None required

Type of current: DCEN

Approvals and conformances:

- AWS A5.20, E71T-11
- ASME SFA 5.20, E71T-11
- ABS E71T-11
- CWB E491T-11 H8

FABSHIELD® 23

AWS E71T-GS

We're talking versatile: Fabshield 23 is an E71T-GS self-shielded flux-cored wire for general-purpose use and welding in all positions. It's especially suited for single-pass fillet and lap welds on thin-gauge mild or galvanized steel.

Typical applications:

- excavation equipment
- general fabrication
- prefab building fabrications tanks
- railroad car repair

Typical weld metal properties

(Chem Pad):

Carbon	0.18
Manganese	0.65
Silicon	0.40
Phosphorus	0.01
Sulphur	0.01
Aluminum	1.30

Typical mechanical properties (AW):

Tensile Strength (psi)	89,600 (618 MPa)
------------------------	------------------

Typical Charpy V-notch impact values:

Not applicable

Recommended welding procedures:

Dia.	Amps	Volts	Electrical Stickout
.030" (0.8 mm)	35-140	12-18	1/4"-1/2"
.035" (0.9 mm)	50-150	13-19	1/4"-5/8"
.045" (1.2 mm)	80-220	13-20	1/4"-5/8"
1/16" (1.6 mm)	110-270	15-22	3/4"-1"
3/32" (2.4 mm)	125-300	15-22	3/4"-1"

Shielding gas: None required

Type of current: DCEN

Approvals and conformances:

- AWS A5.20, E71T-GS
- ASME SFA 5.20, E71T-GS
- ABS E71T-GS
- CWB E491T-GS

FABSHIELD® 3Ni1

AWS E71T-K6J

You'll appreciate the smooth handling of Fabshield 3Ni1 whenever you must work with high-impact values at low temperatures. An all-position, self-shielded tubular wire, it gives you a globular type of transfer with fast-freezing slag. It's designed for all-position single- and multi-pass applications such as fillets, lap joints and deep groove butt joints.

Typical applications:

- barges
- construction
- general fabrication
- offshore structures
- ships

Typical diffusible hydrogen

(gas chromatography)

Less than 6.0 ml/100 g

Typical weld metal properties

(Chem Pad):

Carbon	0.08
Manganese	0.84
Silicon	0.06
Phosphorus	0.012
Sulphur	0.003
Nickel	0.67
Aluminum	0.62

Typical mechanical properties (AW):

Tensile Strength (psi)	79,700 (550 MPa)
Yield Strength (psi)	64,100 (442 MPa)
Elongation % in 2"	29%

Typical Charpy V-notch impact values:

Avg. at -20°F (-29°C)	110 ft.lb. (149J)
Avg. at -60°F (-51°C)	60 ft.lb. (81J)

Recommended welding procedures:

Dia.	Amps	Volts	Electrical Stickout
5/64" (2.0 mm)	170-350	17-22	1"
3/32" (2.4 mm)	225-500	26-32	1"-1 1/6"

Shielding gas: None required

Type of current: DCEN

Approvals and conformances:

- AWS A5.29, E71T-K6J
- ASME SFA 5.29, E71T-K6J
- ABS 3SA, 3YSA

FABSHIELD® 81N1

AWS E71T8-Ni1 J

Fabshield 81N1 is great for a variety of structural and general fabrication applications. This all-position wire is designed for single- or multiple-pass applications requiring high impact toughness at low temperatures. Excellent for vertical down welding on pipe.

Typical applications:

- storage piping
- transportation
- offshore structures
- construction
- general fabrication

Typical weld metal properties

(Chem Pad):

Carbon	0.06
Manganese	0.76
Silicon	0.08
Phosphorus	0.01
Sulphur	0.005
Nickel	0.92
Aluminum	0.78

Typical mechanical properties (AW):

Tensile Strength (psi)	76,000 (524 MPa)
Yield Strength (psi)	64,000 (441 MPa)
Elongation % in 2"	29%

Typical Charpy V-notch impact values

(AW):

Avg. at -40°F (-40°C) 180 ft.lb. (244J)

Recommended welding procedures:

Dia.	Amps	Volts	Electrical Stickout
5/64" (2.0 mm)	200-350	18-22	1"

Shielding gas: None required

Type of current: DCEN

Approvals and conformances:

- AWS A5.29, E71T8-Ni1 J
- ASME SFA 5.29, Class 71T8-Ni1 J
- ABS E71T 8-Ni1J
- EN758: T38 41Ni YN2 H10

FABSHIELD® 81N2

AWS E81T8-Ni2 J

Fabshield 81N2 is an all position wire designed for single- or multiple-pass applications requiring high impact toughness at low temperatures and is excellent for vertical-down welding on pipe.

Typical applications:

- storage piping
- transportation
- offshore structures
- construction
- general fabrication

Typical weld metal properties

(Chem Pad):

Carbon	0.04
Manganese	0.73
Silicon	0.012
Phosphorus	0.004
Sulphur	0.08
Nickel	2.18
Aluminum	0.76

Typical mechanical properties (AW):

Tensile Strength (psi)	84,700 (584 MPa)
Yield Strength (psi)	71,600 (494 MPa)
Elongation % in 2"	27%

Typical Charpy V-notch impact values:

Avg. at -40°F (-40°C) 180 ft.lbs. (244J)

Recommended welding procedures:

Dia.	Amps	Volts	Electrical Stickout
5/64" (2.0 mm)	200-350	18-22	1"

Shielding gas: None required

Type of current: DCEN

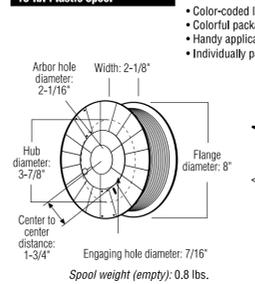
Approvals and conformances:

- AWS A5.29, E81T8-Ni2 J
- ASME SFA 5.29
- ABS 81T8-Ni2 J



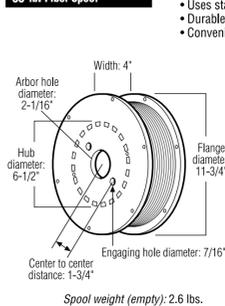
AVAILABLE PACKAGING:

10-lb. Plastic Spool



- Color-coded labels for easy wire identification
- Colorful packaging – great for P.O.P. displays
- Handy application and wire size reference chart on back
- Individually packed for increased portability and protection

33-lb. Fiber Spool



- Uses standard spool hub – no special adapters required
- Durable – designed to withstand most kinds of everyday wear and tear
- Convenience, easy to change over

