GROUP 4: METAL TO EARTH FOR EXTREME ABRASION AND LOW IMPACT

AC-DC BOROD® - COATED

AC-DC BOROD is similar to Tube Borium in all respects except particle mesh size, which is finer (425 microns down) to provide deposits resembling a fine grit sandpaper. Its deposit is heterogeneous consisting of tungsten carbide particles suspended in a tungsten steel matrix. Borod deposits generally provide slightly increased abrasion protection.

Welding Procedures/Characteristics: For AC-DC Borod, use minimum amperage to minimizer dilution. Use AC or DCEP (reverse polarity). Avoid multiple layers; use stringer beads. For hot wear application up to 900°F (482°C).**Applications:** Log Grapplers, Concrete Pug Mill Paddles, Ash Plows, Ore Chutes, Sand Slinger Buckets

Typical Chemical Composition:
Alloy Content: Tungsten Carbide - 60%
Iron Base

	Part Number	Packaging	Grain Size	Dimensions Diameter x Length	Amperage (AC, DC+)
■	10234400	10 lb Vac Pak (4.5 kg)	40 - Down (425µ – Down)	1/8" x 14" (3.2 mm x 35.6 cm)	80 – 100
■	10234600	10 lb Vac Pak (4.5 kg)	40 - Down (425µ – Down)	5/32" x 14" (4.0 mm x 35.6 cm)	100 – 120
■	10234800	10 lb Vac Pak (4.5 kg)	40 - Down (425µ – Down)	3/16" x 14" (4.8 mm x 35.6 cm)	120 – 150

BARE BOROD® - BARE

BARE BOROD is similar to Tube Borium in all respects except particle mesh size, which is finer (40 down) to provide deposits resembling a fine grit sandpaper. Its deposit is heterogeneous consisting of tungsten carbide particles suspended in a tungsten steel matrix. Borod deposits generally provide slightly increased abrasion protection.

Welding Procedures/Characteristics: For Bare Borod adjust excess acetylene flame 3x length of inner cone. Use torch tip size larger than normally used to weld same diameter mild steel rod. Sweat deposit to parent metal, applying with minimum dilution. Avoid multiple layers. For hot wear application up to 900°F (482°C).

Applications: Irrigation Shovel, Bean Knife, Chisel Tooth, Twisted Chisel, Auger Bits, Conveyor Fans, Anvil Knives

Typical Chemical Composition:
Alloy Content: Tungsten Carbide - 60%
Iron Base

	Part Number	Packaging	Grain Size	Dimensions Diameter x Length
■	10231300	10 lb Box (4.5 kg)	40 - Down (425µ – Down)	1/8" x 14" (3.2 mm x 35.6 cm)
	10231700	10 lb Box (4.5 kg)	40 - Down (425µ – Down)	5/32" x 14" (4.0 mm x 35.6 cm)
	10234000	60 lb Bulk Pak (27.2 kg)	40 - Down (425µ – Down)	5/32" x 28" (4.0 mm x 71 cm)
	10231900	10 lb Box (4.5 kg)	40 - Down (425µ – Down)	3/16" x 14" (4.8 mm x 35.6 cm)

AC-DC TUBE BORIUM® - COATED

AC-DC TUBE BORIUM is manufactured by metering crushed tungsten carbide particles of controlled mesh size into steel tubes. The AC-DC Borium receives a thin graphitic coating. Borium is available in a variety of particle sizes; fine mesh sizes increase wear resistance, coarse sizes improve cutting efficiency. BORIUM deposits absorb more impact than the finer BOROD overlays because more matrix is exposed.

Welding Procedures/Characteristics: For AC-DC Borium, use minimum amperage to minimize dilution. Can be applied AC or DCEP (reverse polarity). Apply in flat or inclined position. Use a stringer bead. Avoid multiple layers. Maximum working temperature 900°F.

Applications: Furrowing Shovel, Subsoiler Point, Rasp Bars, Tool Joints, Muller Plows**Typical Chemical Composition:**

Alloy Content: Tungsten Carbide - 60%
Iron Base

	Part Number	Packaging	Grain Size	Dimensions Diameter x Length	Amperage (AC, DC+)
■	10229100	10 lb Vac Pak (4.5 kg)	30 x 40 (600µ - 425µ)	1/8" x 14" (3.2 mm x 35.6 cm)	80 – 100
■	10229300	10 lb Vac Pak (4.5 kg)	20 x 30 (850µ – 600µ)	5/32" x 14" (4.0 mm x 35.6 cm)	100 – 120
■	10229500	10 lb Vac Pak (4.5 kg)	20 x 30 (850µ – 600µ)	3/16" x 14" (4.8 mm x 35.6 cm)	120 – 150
	10229700	10 lb Vac Pak (4.5 kg)	10 x 30 (2000µ - 600µ)	1/4" x 14" (6.4 mm x 35.6 cm)	140 – 165

ACETYLENE TUBE BORIUM® - BARE

ACETYLENE TUBE BORIUM is manufactured by metering crushed tungsten carbide particles of controlled mesh size into steel tubes. Borium is available in a variety of particle sizes; fine mesh sizes increase wear resistance, coarse sizes improve cutting efficiency. Borium deposits absorb more impact than the finer Borod overlays because more matrix is exposed.

Welding Procedures/Characteristics: For ATB, adjust excess acetylene flame 3x length of inner core. Use torch tip size larger than normally used to weld same diameter mild steel rod. Sweat deposits to parent metal with minimum dilution. Limit to one layer. Maximum working temperature is 900°F (482°C).

Applications: Plow Shares, Cane Knives, Teeth, Tool Drill Bits

Typical Chemical Composition:
Alloy Content: Tungsten Carbide - 60%
Iron Base

	Part Number	Packaging	Grain Size	Dimensions Diameter x Length
	11895000	60 lb Bulk Pak (27.2 kg)	30 x 40 (600µ - 425µ)	7/64" x 28" (2.8 mm x 71 cm)
■	10227100	10 lb Box (4.5 kg)	30 x 40 (600µ - 425µ)	1/8" x 14" (3.2 mm x 35.6 cm)
	10227300	60 lb Bulk Pak (27.2 kg)	30 x 40 (600µ x 425µ)	1/8" x 28" (3.2 mm x 71 cm)
■	10227500	10 lb Box (4.5 kg)	20 x 30 (850µ - 600µ)	5/32" x 14" (4.0 mm x 35.6 cm)
■	11429000	10 lb Box (4.5 kg)	30 x 40 (600µ - 425µ)	5/32" x 28" (4.0 mm x 71 cm)
	10227900	10 lb Box (4.5 kg)	20 x 30 (850µ – 600µ)	3/16" x 14" (4.8 mm x 35.6 cm)
■	10228100	10 lb Box (4.5 kg)	30 x 40 (600µ – 425µ)	3/16" x 14" (4.8 mm x 35.6 cm)
	10228700	10 lb Box (4.5 kg)	30 x 40 (600µ - 425µ)	1/4" x 14" (6.4 mm x 35.6 cm)

Products marked by the " ■ " symbol are typically stocked items. All others manufactured upon customer request - may require a minimum quantity and/or may be subject to production lead time. Contact customer care or your sales representative with any questions.