At Metals And Welding Specialities, we are proud to present our premium HASTELLOY HYBRID-BC1 Welding Electrodes, engineered for demanding corrosion and acid environments. Our electrodes deliver a high-performance weld deposit with the corrosion resistance of a superalloy, ideal for critical applications in chemical processing, petrochemical, power generation, and pharmaceutical industries. The HYBRID-BC1 formulation bridges the gap between nickel-molybdenum and nickel-chromium-molybdenum alloys by offering excellent resistance to hydrochloric acid, sulfuric acid, and mixed acid media, while also tolerating oxidizing species such as dissolved oxygen or ferric ions.

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These coated electrodes are based on the UNS N10362 grade and conform to AWS A5.11 (ENiMoCr-1) classification, making them fully compatible with industry welding standards. The universal standard name “HASTELLOY HYBRID-BC1” underscores its hybrid chemistry approach, combining nickel, molybdenum, chromium, and trace tungsten to deliver superior corrosion performance. When welded, the electrode deposit can match the corrosion behavior of wrought HYBRID-BC1 alloy, with strong resistance against pitting, crevice corrosion, and stress corrosion cracking in chloride environments.

Hastelloy HYBRID-BC1 Welding Electrodes, Hastelloy HYBRID-BC1 Welding Electrodes Manufacturers, Hastelloy HYBRID-BC1 Welding Electrodes Suppliers, Hastelloy HYBRID-BC1 Welding Electrodes Stockists, Hastelloy HYBRID-BC1 Welding Electrodes Exporters

Metals And Welding Specialities' manufacturing ensures that each rod is coated with a flux system that stabilizes the arc, minimizes spatter, and ensures proper slag release. Our coated electrodes are optimized for shielded metal arc welding (SMAW), and welders may use direct current electrode positive (DCEP) polarity for stable operation. The flux composition also provides scavenging action to bind sulfur or chlorine impurities and maintain weld integrity. Because of the alloy's low carbon and stabilized formulation, the weld zone resists carbide precipitation and retains corrosion performance even in the as-welded or solution-annealed condition.

In service, HYBRID-BC1 coated electrodes are ideal for fabrication and repair of equipment such as reaction vessels, heat exchangers, piping, valves, pumps, and storage tanks exposed to severe acid conditions. The weld metal stays stable at elevated temperatures and can resist acid attack even up to moderate heat levels without compromising mechanical strength. The blend of nickel, molybdenum, and chromium enables good resistance toward both reducing and oxidizing media, unlike traditional B-type alloys which struggle in the presence of oxidants. This hybrid chemistry gives engineers flexibility in mixed-acid environments, particularly where halides, oxidants, or residual contaminants may be present.

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To get the best results, Metals And Welding Specialities' technical data suggests preheating and interpass temperature control depending on substrate and joint thickness. After welding, optional post-weld solution annealing can further stabilize microstructure, though our electrode chemistry is designed to perform well even without extensive post treatments. Our quality control ensures that each electrode batch is tested for coating consistency, core chemistry, and weld deposit properties to meet rigorous performance demands.

In summary, Metals And Welding Specialities' HASTELLOY HYBRID-BC1 Welding Electrodes bring together advanced alloy design, robust corrosion resistance, and reliable weldability. Whether you're building new acid-resistant systems or carrying out repair work, our electrodes provide a dependable welding consumable that handles harsh environments with confidence.

Specification HASTELLOY HYBRID-BC1 Welding Electrodes

Classification	**AWS A5.11, ENiMoCr-1**
Form	Welding Electrode, Welding Rods
Type Of Current	Direct Current Electrode Positive (DCEP)
Diameters	3/32", 1/8", 5/32", 3/16" or 2.5mm, Ø 3.2mm, Ø 4.0mm, Ø 5.0mm
Size	2.0mm ∞ 5.0mm

AC/DC+	50-80, 80-110, 100-135, 140-180
Welding Positions	All positions 5/32” & 3/16” recommended for use in flat & horizontal positions only (F, V, OH, H)
HASTELLOY HYBRID-BC1 Welding Electrodes Application & uses	Petroleum Chemical plant Power sector Gas Industry Hardware tools Metallurgy Machinery Construction Shipbuilding

Equivalent Grade Of HASTELLOY HYBRID-BC1 Welding Electrodes

Class	UNS	Haynes
ENiMoCr-1	N10362	HASTELLOY® HYBRID-BC1®

HASTELLOY HYBRID-BC1 Welding Electrodes Chemical Composition

Nickel:	Balance
Molybdenum:	27.0-32.0
Iron:	1.0-3.0
Chromium:	1.0-3.0
Cobalt:	3.0 max.
Tungsten:	3.0 max.
Manganese:	2.0 max.
Copper:	0.50 max.
Other:	0.50 max.
Silicon:	0.20 max.
Carbon:	0.02 max.
Sulfur:	0.03 max.
Phosphorus:	0.04 max.

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HASTELLOY HYBRID BC1 electrode, HYBRID-BC1 welding rod, UNS N10362 electrode, AWS A5.11 ENiMoCr-1, hybrid BC1 filler metal, BC1 coated electrode, corrosion resistant welding rod BC1, nickel molybdenum chromium electrode, chemical plant welding consumables, acid resistant electrode BC1, HYBRID-BC1 weld wire, HYBRID BC1 consumables, Haynes HYBRID BC1, HYBRID BC1 arc electrode, pitting corrosion resistant electrode, BC1 welding consumable, high nickel electrode N10362, nickel alloy coated electrode BC1, BC1 weld rod, BC1 corrosion electrode, hybrid BC1 repair rod, BC1 acid resistant filler, BC1 crevice corrosion electrode, HYBRID BC1 shielded metal arc rod, BC1 molybdenum chromium electrode, BC1 weld consumables supplier, BC1 electrode for HCl service, BC1 electrode for sulfuric acid, HYBRID BC1 corrosion performance, BC1 filler rod specification, BC1 welding electrode standards, BC1 weld metal properties, HYBRID BC1 electrode chemical composition, BC1 weld arc stability, BC1 electrode for chemical processing, BC1 electrode for heat exchanger welds, BC1 electrode technical data.