



BICON Inhibitor Compounds

Prysmian Inhibitor Compounds are designed to prevent galvanic corrosion and to enhance connections in electrical joints. They are especially effective when used on copper to aluminium and aluminium to aluminium connections.

In general, Prysmian Compounds consist of a liquid base vehicle in which zinc particles are suspended.

The base vehicle is natural or synthetic grease that prevents water and other contaminants from influencing the connections and prevents the formation of surface oxides. The zinc particles help to break down existing oxide on the conducting surfaces when those surfaces are brought together under pressure. These particles form electrical bridges, which improve the connection.

There are two basic types, BICON - BX1 and BICON - BX13.

BICON - BX1 has a natural (petroleum) grease base. It is recommended for all bare outdoor applications because of its excellent weathering properties. This petroleum base reacts chemically with rubber insulation and to a lesser degree with polyethylene insulation. The result is swelling and a reduction in the tensile characteristics of the insulating material. If reasonable care is taken to remove any excess from a connection, the resulting effect on insulating material is negligible.

BICON - BX13 has a synthetic grease base. It is recommended for use where it will be in contact with insulating materials such as rubber and polyethylene. The synthetic base has no significant effect on insulating materials, nor does the grit material. In addition, BICON - BX13 has a much higher melting point. Our experience shows that BICON - BX13 Inhibitor Compounds enhance the performance of electrical connections, particularly in aluminium to aluminium and aluminium to copper joints.

The compounds, in bulk, are highly resistive; however, when applied as a thin film, with the aid of zinc particles, they decrease the contact resistance of a joint.

The following are the chemical and physical properties of BICON - BX1 and BICON - BX13

	BICON - BX1	BICON - BX13
Constituents	Aluminium Sterate Soap Mineral Oil Zinc Dust	Synthetic Grease type base Zinc base
Penetration	290	280
Dropping Point (min)	110°C	260°C
Viscosity at 380C (CS)	305	185
Flash Point (min)	190°C	273°C



Where should BICON Inhibitor Compounds be used?

Inhibitor Compounds should be used in all aluminium to aluminium and aluminium to copper joints. The contact surfaces of the elements to be joined should be thoroughly scratch brushed. Inhibitor Compounds should be liberally applied and any excess removed after securing the joint.

BICON-BX1 should be used for all applications where insulation will not be applied to the joint, such as substations and switchgear.

BICON-BX13 should be used for all applications where insulation will be applied to the connection.

AVAILABILITY

BICON - BX1 is supplied in 225g squeeze tube (pictured below) or 3kg containers



BICON- BX13 is supplied in 3kg containers

Composition

BICON X1

(Category 'A')

Petroleum based greases, that is, petroleum oils thickened by soaps or other agents. Certain other additives may be incorporated.

Lithium base soap
Mineral oil
Zinc dust

BICON X13

(Category 'B')

Greases based on Non-petroleum products, that is, synthetic lubricants or other oils.

Synthetic grease base
Zinc dust.



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