PENETROX™ TYPES A, A-13, E, HT

Oxide Inhibiting Joint Compounds

PENETROX™ oxide inhibiting compounds product low initial contact resistance, seal out air and moisture, prevent oxidation or corrosion, exhibit superior weathering characteristics, are usable over wide temperature ranges, and provide a high conductivity "gas-tight" joint. All PENETROX™ compounds contain homogeneously suspended metal particles. The suspended metal particles assist in penetrating thin oxide films, act as electrical "bridges" between conductor strands, aid in gripping the conductor, improve electrical conductivity and enhance the integrity of the connection.

The specially formulated PENETROX™ compounds are for use with compression and bolted connectors providing an improved service life for both copper and aluminum connections. Additionally, the nontoxic compounds are an excellent lubricant for threaded applications, reducing galling and seizing.



PENETROX™ with brush lid

All types of PENETROX™ are available in an 8 oz. bottle with a brush lid for ease of application.



PENETROX™ A

PENETROX A is a natural (petroleum) base compound with evenly suspended zinc particles. It is recommended for aluminum to aluminum, aluminum to copper connections and aluminum conduit threads. It is not recommended for use with rubber or polyethylene insulated conductors. UL listed to 600V.



PENETROX™ A13

PENETROX™ A13 is a synthetic base compound with evenly suspended zinc particles. It is recommended for aluminum to aluminum, aluminum to copper connections plus aluminum conduit threads. It is compatible with rubber, polyethylene and other insulating materials. UL Listed for all voltages.



PENETROX™ E

PENETROX™ E is a synthetic base compound with evenly suspended copper particles. It is recommended for copper to copper, copper threads and all grounding applications. UL Listed.



PENETROX™ HT

PENETROX™ HT is a synthetic silicone based compound with evenly suspended zinc particles and nickel-aluminum alloy particles. It is recommended for aluminum to aluminum connections. It is compatible with rubber. Designed for use with High Temperature ACSS and ACCC connectors. Not UL Listed.



PENACARTRIDGE

PENACARTRIDGE is a 1 lb. cartridge filled with PENETROX-A. It's designed to fit standard caulking guns for easy insertion into transmission and distribution connectors. Additionally, this packaging design provides a convenient method for applying PENETROX™ to many different applications.

PENETROX™ TYPES A, A13, E, HT

Technical Information



PENETROX™ oxide inhibiting compounds product low initial contact resistance, seal out air and moisture, prevent oxidation or corrosion, exhibit superior weathering characteristics, are usable over wide temperature ranges, and provide a high conductivity "gas-tight" joint. All PENETROX™ compounds contain homogeneously suspended metal particles. The suspended metal particles assist in penetrating thin oxide films, act as electrical "bridges" between conductor strands, aid in gripping the conductor, improve electrical conductivity and enhance the integrity of the connection.

The specially formulated PENETROX™ compounds are for use with compression and bolted connectors providing an improved service life for both copper and aluminum connections. Additionally, the nontoxic compounds are an excellent lubricant for threaded applications, reducing galling and seizing.

PENETROX™ Type	Aluminum to Aluminum	Aluminum to Copper	Copper to Copper	Aluminum Conduit Threads	Copper Conduit Threads
PENETROX A	X	X		X	
PENETROX A13	X	X		X	
PENETROX E			X		X
PENETROX HT	X				

See below for more details on the different types of PENETROX

PENETROX™ Type A

PENETROX™ A consists of a natural (petroleum) base vehicle in which zinc particles are suspended. For aluminum to aluminum, aluminum to copper applications and aluminum conduit threads. It is not recommended for use with rubber and polyethylene insulated conductors. UL Listed to 600 volts.

PENETROX™ Type A13

PENETROX A13 consists of a non-petroleum base vehicle in which zinc particles are suspended. Recommended for aluminum to aluminum, aluminum to copper applications and aluminum conduit threads. Compatible with insulating materials such as rubber, or polyethylene. UL Listed and recommended for all voltages.

PENETROX™ Type E

PENETROX E consists of a non-petroleum base vehicle in which copper granules are suspended. Recommended for copper to copper applications, grounding and for use on copper conduit threads. UL Listed to 600 volts.

PENETROX™ Type HT

PENETROX HT consists of a non-petroleum base vehicle in which zinc and nickel-aluminum particles are suspended. Recommended for use with aluminum to aluminum High Temperature rated ACSS and ACCC conductors. Not UL Listed.

Easy to apply:

1. Scratch brush the conductor surfaces until bright and clean.
2. Immediately apply PENETROX™ to the conductive surfaces.
3. For EHV applications, remove all excess PENETROX™ after installation is complete.



38-0305-00 Wire Brush

Shelf Life

When stored in its original container in cool (under 100°F) dry environment, PENETROX™ oxide inhibiting compound will remain workable and functional for 5 years from the Date of Manufacture (MO) marked on the container.

PENETROX™ TYPES A, A13, E, HT

Properties and Ordering Information

PROPERTIES OF PENETROX™

Property	Value PENETROX™ Definition	PENETROX™ HT	PENETROX™ E & A13	PENETROX™ A
Penetration (Unworked)	The value in accordance to ASTM D217 indicates the consistency of a grease. The higher the number, the softer the grease.	240	250	230
Dropping Point (Minimum)	The temperature at which the grease passes from the semi-solid to a liquid state under test conditions.	>580° F	350° F	230° F
Pour Point (Maximum)	The lowest termperature at which the compound will flow. Pour point is the lubricant's ability to perform in cold conditions.	–58° F	–40° F	–15° F

* MSDS sheets available through customer service.

ORDERING INFORMATION

Catalog Number				Container Type	Container Size
PENETROX™ A	PENETROX™ A-13	PENETROX™ E	PENETROX™ HT †		
PENA1/2	—	—	—	Tube	1/2 oz.
PENA4	PENA134	PENE4	PENHT4	Squeeze Bottle	4 oz.
P8A	PENA138	PENE8	PENHT8	Squeeze Bottle	8 oz.
PENA8BLB	PENA138BLB	PENE8BLB	PENHT8BLB	Bottle with Brush Lid	8 oz.
PENACARTRIDGE	PENA13CARTRIDGE	—	PENHT1LB	Cartridge	1 lb.*
PENAQT	PENA13QT	PENEQT	—	Plastic Tub	1 Quart
PENAGAL	PENA13GAL	PENEGAL	PENHTGAL	Can	1 Gallon
PENA5GAL	PENA135GAL	PENE5GAL	—	Pail	5 Gallons
PENA55GAL	PENA1355GAL	PENE55GAL	—	Drum	55 Gallons

* 1 lb. cartridge will fit standard caulking guns.
† Not UL Listed.