

Description:

KnightCote® coating is a relatively thin, uniformly applied coating that can be applied to heading-grade wire. KnightCote coating prevents metal-to-metal contact, provides protection against die wear, and prevents seizure, scoring, galling and welding of parts. This coating can withstand high-impact forces, severe upsetting and extrusion, and warm heading. KnightCote coating can be applied to all heading alloys.

Relative Price:

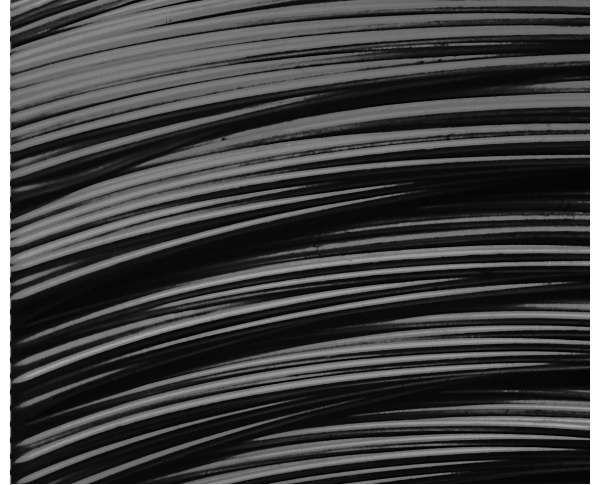
Similar to Carpenter Cu coating extra.

Attributes:

- Applied by a proprietary process that results in minimal variation within or between coils.
- Can be used in a higher-temperature forming process than typical molybdenum disulfide-type coatings.

Coil Dimensions:

Wire dimensions: 0.150" to 0.450". (It is possible to coat typical stainless alloys up to 0.500" diameter.)
Coil package: 34" ID Min. / 50" OD Max.
Coil weight: 500 to 2000 lbs.



Applications:

KnightCote coating has been used to produce a variety of fasteners requiring different degrees of upsetting and extrusion. KnightCote coating has been successfully used on various stainless grades and high temperature alloys.

Potential Applications:

KnightCote coating could be considered for use in heading and forming operations that require high production rates, severe forming or extrusion. The lubricant can be applied over bare wire or copper-coated wire.

Carpenter's Coating/Lubricant Options

Coating classes are determined by selecting a coating option designated by a letter and a drawing option designated by a number. This is typically referred to as Carpenter's Alpha-Numeric Coating Classification System. The coating and drawing options are as follows:

Must choose one Coating Option and one Drawing Option

Coating Options (Alpha)

- A – Uncoated**
- B – Lime**
- C – Precoat**
- F – Ecolube® II Coating**
- H – Copper + Lime**
- K – Copper**
- L – Copper + Precoat**
- N – Copper + Moly Overcoat**
- O – Copper + Ecolube II**
- P – Special**
- R – KnightCote® wire coating**
- S – Copper + KnightCote wire coating**

Drawing Options (Numeric)

- 1 – Undrawn (Annealed at Finish)**
- 2 – Drawn in Soap**
- 3 – Drawn in Grease**
- 4 – Drawn in Molybdenum Disulfide-Bearing Soap**
- 5 – Drawn Without Soap or Grease (Only Coatings F, N, O, S)**

Guidelines for Coating Class Selection

*Class items shown in **bold face** reflect changes from previous coating system. This table does not include all possible combinations. Refer to columns on left for all coating/drawing options.*

CLASS	DESCRIPTION	APPLICATION
A1	Uncoated	To be Coated/Drawn by Customer
A2	Uncoated Drawn in Soap	Minor Upset/No Extrusion
A3	Uncoated Drawn in Grease	Simple Heads/Bright Finish
B1S	Lime Coat	To be Drawn by Customer
B1H	Heavy Lime Coat	To be Drawn by Customer
B2	Lime/Drawn in Soap	Minor Upsets
B3	Lime/Drawn in Grease	Simple Heads/Brighter Finish
C1	Precoat Coat	To be Drawn by Customer
C2	Precoat/Drawn in Soap	Minor Upsets and Extrusions
C3	Precoat/Drawn in Grease	Simple Heads/Brighter Finish
F1	Ecolube® II Coat	To be Drawn by Customer/ Possible Copper Replacement
F2	Ecolube II/Drawn in Soap	Typical Upsets
F3	Ecolube II/Drawn in Grease	Typical Upsets/Sharp Corners
K1	Copper Plated/No Overcoat	To be Drawn by Customer
K3	Copper/Drawn in Grease	Typical Upsets/Sharp Corners
H1S	Copper + Lime	To be Drawn by Customer
H1H	Copper + Heavy Lime	To be Drawn by Customer
H2	Copper + Lime/Drawn in Soap	Typical Upsets/Minor Extrusions
N1	Copper + Moly Overcoat	To be Drawn by Customer
N2	Copper + Moly Overcoat/Drawn in Soap	Upsets and Severe Extrusions
K1	Copper Plated/No Overcoat	To be Drawn by Customer
K2	Copper/Drawn in Soap	Typical Upsets/Minor Extrusions
L1	Copper + Precoat	To be Drawn by Customer
L2	Copper + Precoat/Drawn in Soap	Typical Upsets and Extrusions
L3	Copper + Precoat/Drawn in Grease	Typical Upsets/Minor Extrusions/ Sharp Corners
H1S	Copper + Lime	To be Drawn by Customer
H1H	Copper + Heavy Lime	To be Drawn by Customer
H2	Copper + Lime/Drawn in Soap	Typical Upsets/Minor Extrusions
N1	Copper + Moly Overcoat	To be Drawn by Customer
N2	Copper + Moly Overcoat/Drawn in Soap	Heavy Extrusions
O1	Copper + Ecolube II	To be Drawn by Customer
O2	Copper + Ecolube II/Drawn in Soap	Heavy Extrusions
P1	Any Special Coating	To be Drawn by Customer
P2	Any Special Coating/Drawn in Soap	Based on Specific Application
P3	Any Special Coating/Drawn in Grease	Based on Specific Application

When copper plating is ordered on wire up to 0.415" diameter, appropriate alloys will be strand plated. Larger diameters and all sizes of high-strength alloys such as Waspaloy alloy, Pyromet® 718 alloy, and Custom 630 stainless will be batch plated. Copper thickness will be about 100 micro inches (0.0001") on all wire 0.100" diameter and larger. The thickness on wire < 0.100" diameter will be about 75 micro inches (0.000075"). Other copper thicknesses are available upon request.

For additional information on other Carpenter products, call 1-800-654-6543 or visit us at www.carttech.com.