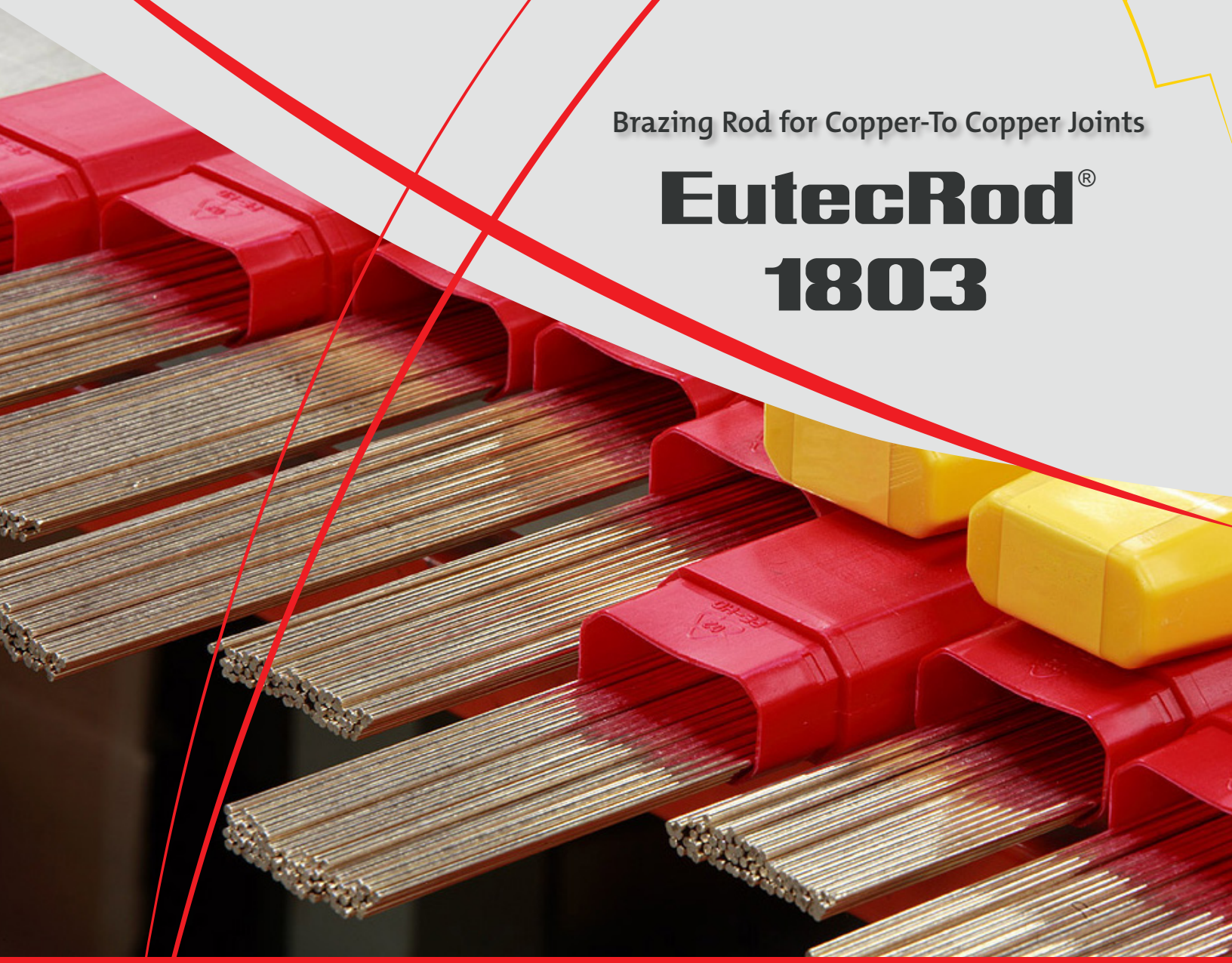
Castolin Eutectic®
Eutectic Castolin

Brazing Rod for Copper-To Copper Joints

EutecRod® 1803



- Good for moderate to loose joint clearances
- Self-fluxing in copper to copper joints
- Excellent choice for light metal HVAC, pipe and electrical applications

EutecRod® 1803

EutecRod 1803 is a copper-phosphorus alloy. EutecRod 1803 contains some 15% silver for improved corrosion resistance and flow characteristics in joints where close fits cannot be maintained.

Excellent brazeability on copper-based alloys when used with FloTectic 1100 or XuperBraze 100 fluxes.

TECHNICAL DATA

Typical Values	
Tensile Strength:	30,000 - 40,000 psi (207 - 276 MPa)
Solidus*:	1190°F (645°C)
Liquidus:**	1475°F (800°C)
Max. Brazing Temp.:	1500°F (815°C)
Electrical Conductivity:	9.9% IACS
Electrical Resistivity:	17.3 MichrOhm-cm
Heating Method:	Oxy-fuel torch, induction, furnace brazing

**The solidus temperature is the highest temperature at which the part remains solid i.e. the start of melting.*
***The liquidus temperature is the lowest temperature at which the part is molten i.e. complete melting.*

PROCEDURE FOR USE

PREPARATION: Clean joint area with RotoClean OS or use a VOC-free solvent. Align parts and preheat locally to facilitate quicker joint area heat-up. When brazing copper to brass or bronze paint joint area and rod with FloTectic 1100.

TECHNIQUE: Use a 2x carburizing flame to prevent oxidation. After preheating, deposit filler metal using a continuous "drop-and-melt" technique. *Note that 1803 is very fluid.* Make sure that the joint gaps do not exceed 0.006". Continue until the joint is slightly overfilled.

Note: When using a flux any "glassy" residue can be readily removed by light scraping.

POST-BRAZING: If necessary, parts can be cooled in water.

TYPICAL APPLICATIONS

EutecRod 1803 has silver-enhanced flowability and ground-contact corrosion resistance.

Use when brazing copper heat exchangers, in-ground electrical connections, copper parts subject to vibration. No clean up is needed due to its self-fluxing properties.

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Eutectic Corporation:
N94 W14355 Garwin Mace Dr.
Menomonee Falls WI, 53051 USA
+1 800. 558. 8524 • eutectic.com

Eutectic Canada:
428, rue Aimé-Vincent Vaudreuil-Dorion,
Québec J7V 5V5 Canada
+1 800. 361. 9439 • eutectic.ca

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