



TECHNICAL SPECIFICATION SHEET

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HARRIS WELCO 15 AND 40 BRAZING FILLER METAL (LOW FUMING BRONZE)

WARNING: PROTECT yourself and others. Read and understand this information.

FUMES AND GASES can be hazardous to your health.

HEAT RAYS (INFRARED RADIATION) from flame or hot metal can injure eyes.

- Before use, read and understand the manufacturer's instructions, Material Safety Data Sheet (MSDSs), and your employer's safety practices.
- Keep your head out of fumes.
- Use enough ventilation, exhaust at the flame, or both, to keep fumes and gases from your breathing zone and the general area.
- Wear correct eye, ear, and body protection.
- See American National Standard Z49.1, *Safety in Welding, Cutting, and Allied Processes*, published by the American Welding Society, 550 N.W. LeJeune Road, Miami, Florida 33126; OSHA Safety and Health Standards, available from the U.S. Government Office, Washington, DC 20402

STATEMENT OF LIABILITY — DISCLAIMER

Any suggestion of product applications or results is given without representation or warranty, either expressed or implied. Without exception or limitation, there are no warranties of merchantability or of fitness for particular purpose or application. The user must fully evaluate every process and application in all aspects, including suitability, compliance with applicable law and non-infringement of the rights of others. J.W. Harris Co., Inc. and its affiliates shall have no liability in respect thereof.

NOMINAL CHEMICAL COMPOSITION:

Copper	58-62 %	Zinc	Balance
Tin	.30-3.00 %	Manganese	.25 % max
Iron	1.50 % max	Silicon	.30 % max
Aluminum	.01 % max.	Lead	.05 % max.

PHYSICAL PROPERTIES:

Melting Point	1620° F (882° C)
Working Temperature	1600-1720° F(871-938° C)
Tensile Strength	60,000-65,000 psi
Brinell Hardness	80-90
Machinability	Excellent



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BRAZING PROPERTIES:

Designed for repair and fabrication applications on steel, copper, copper alloys nickel and nickel alloys.

RECOMMENDED PROCEDURE:

Clean all areas to be joined or built-up thoroughly. Paint weld area with Welco 600 bronze brazing flux. Using a neutral flame, heat the part until the flux liquefies. The flux can also be applied directly to the rod, by heating the rod and dipping into the powdered flux. Add a drop of the alloy and flow it out using the torch flame. If a large area is to be surfaced or a number of passes are required to restore the part to the original size, Harris Welco15 or Nickel Silver flux coated rods should be used. There is no need to remove the flux between passes. The torch should be held at a low angle to prevent excessive heat build-up in the part. When working on cast iron, bonding qualities can be improved by first searing the surface with a strong oxidizing flame.

AVAILABLE FORMS:

Standard wire diameters, Preformed rings, Flux coated rods

SPECIFICATION COMPLIANCE:

Harris Welco Internal

RECOMMENDED FLUX:

Welco 600, Nickel Silver

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