A LINCOLN ELECTRIC COMPANY

DYNAFLOW
Brazing Filler Metal

TECHNICAL DATA SHEET

BRAZING PROPERTIES

Dynaflow is a frequent choice for copper brazing. The phosphorus addition makes it “self-fluxing” on copper. Its wide melting range allows operators to fill loose connections and “cap”, or build up, around the finished joint. When heated above its liquidus, however, it will penetrate tight connections. Dynaflow is also a suitable choice to braze brass. In these applications, operators should take care to avoid over heating the brass and use Stay Silv® white brazing flux.
Dynaflow is a popular brazing filler metal for HVAC and refrigeration connections. It’s melting range and copper joint strength makes it an excellent, lower cost, replacement for 15% silver alloys. Dynaflow is not recommended for brazing steel or other ferrous base metals. The phosphorus content promotes formation of a low ductility intermetallic with the ferrous base metal.

CHEMICAL COMPOSITION

Phosphorus	5,9 - 6,2%
Silver	5,5 - 6,5%
Copper	Remainder
Others (total)	ISO Requirements

TYPICAL PHYSICAL PROPERTIES

Solidus	643°C (1189°F)
Liquidus	799°C (1470°F)
Specific weight	8,40 g/cm^3

CORROSION RESISTANCE

Generally similar or higher than the copper base metal, but phosphorus containing alloys, including Dynaflow, should not be used if the braze is exposed to sulfur or sulfur compounds in service.

AVAILABLE FORMS

Rods for manual brazing applications. Brazing rings or spools for automated feeding.

RECOMMENDED FLUX

Harris ECO SMART® boric acid free brazing fluxes (green or black) are an excellent choice to promote sound brazed assemblies, and comply with European REACH requirements. Stay Silv brazing fluxes (white or black) are also recommended. All fluxes above are available in paste or powder form.

SPECIFICATION COMPLIANCE

Manufactured to Harris Products Group engineering standards

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SAFETY INSTRUCTIONS

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 Sheets (MSDS) and your employer's safety practices.
- Keep your head out of fumes.
- Use enough ventilation, exhaust at the flame or heat source, to keep fumes and gases from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- EN WARNING Use of this product may produce fumes containing hazardous compounds. Use local exhaust to keep fumes and gases from all breathing zones.

Use respirator unless exposure is below exposure limits. Infrared radiation from flame or hot metal can injure eyes. Overexposure to copper fumes may cause fever, chills, congestion and headaches. Consult SDS.

STATEMENT OF LIABILITY - DISCLAIMER

Any suggestion of product applications or results is given without representation or warranty, either expressed or implied. The values of the chemical composition of the alloys are given as a range, as shown in the ISO standard. Actual values can only be found in the Inspection Certificate 3.1. or in the Material Test Report that can be obtained with a cost and upon request concerning one specific batch.
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 noninfringement of the rights of others. The Harris Products Group and its affiliates shall have no liability in respect thereof.