# Soft Cut Wire



#### Description

Soft Cut Wire is produced by cutting non ferrous wire into pellets, the length equal to the diameter of the wire. Soft Cut Wire is used mainly for sand removal, deburring and deflashing of non ferrous components.

Soft Cut Wire is available manufactured from 3 metal types, aluminium, copper and zinc. Zinc cut wire is also available in a conditioned form which is used as a longer lasting alternative to cast zinc shot.

#### **Applications**

Deburring and deflashing of aluminium and zinc castings and die castings. Removal of sand from sand castings.

Removal of parting lines and stains from non ferrous castings. Removal of water wrinkle from aluminium die castings and providing a luster satin type finish.

Zinc cut wire provides temporary corrosion protection to ferrous parts blasted with it. A very thin layer, up to  $1.3\mu m$  thick is deposited onto the surface of the part.

#### Size Details

| Shot No.         | CW0.6 | CW0.7 | CW0.8 | CW1.0 | CW1.5 | CW2.0 | CW2.5    |
|------------------|-------|-------|-------|-------|-------|-------|----------|
| Size in mm       | 0.6   | 0.7   | 0.8   | 1.0   | 1.5   | 2.0   | 2.5      |
| Zinc as cut      | 0     | 0     | √     | √     | √     | √     | <b>✓</b> |
| Zinc conditioned | √     | √     | √     | √     | √     | √     | <b>✓</b> |
| Aluminium AW1070 | √     | √     | √     | √     | √     | √     | √        |
| Aluminium AW5056 | √     | √     | √     | √     | √     | √     | √        |
| Copper           | √     | 0     | √     | √     | √     | √     | √        |

### **Physical Properties**

|                  | Specific<br>Gravity   | Bulk<br>Density               | Colour | Shape       | Hardness<br>HV |
|------------------|-----------------------|-------------------------------|--------|-------------|----------------|
| Zinc as cut      | 7.1 g/cm <sup>3</sup> | $\approx 4200 \text{ kg/m}^3$ | Grey   | Cylindrical | 35 - 55        |
| Zinc conditioned | 7.1 g/cm <sup>3</sup> | ≈ 4200 kg/m <sup>3</sup>      | Grey   | Round       | 45 - 60        |
| Aluminium AW1070 | 2.7 g/cm <sup>3</sup> | $\approx 1500 \text{ kg/m}^3$ | Silver | Cylindrical | 40 - 60        |
| Aluminium AW5056 | 2.7 g/cm <sup>3</sup> | $\approx 1500 \text{ kg/m}^3$ | Silver | Cylindrical | 95 - 125       |
| Copper           | 8.9 g/cm <sup>3</sup> | $\approx 5000 \text{kg/m}^3$  | Copper | Cylindrical | 100 - 150      |

## **Typical Chemical Composition % - Zinc**

| Fe    | Zn Al |       | Cd    | Cu    |  |
|-------|-------|-------|-------|-------|--|
| 0.004 | 99.99 | 0.003 | 0.002 | 0.001 |  |

### **Typical Chemical Composition % - Aluminium**

|                     | Cu   | Mg        | Mn         | Fe   | Si  | Zn  | Ti   | Al      | Cr         | Other |
|---------------------|------|-----------|------------|------|-----|-----|------|---------|------------|-------|
| Aluminium<br>AW1070 | 0.01 | 1         | -          | 0.16 | 0.6 | -   | -    | 99.7    | -          | 0.26  |
| Aluminium<br>AW5056 | 0.1  | 4.5 - 5.6 | 0.05 - 0.2 | 0.4  | 0.3 | 0.1 | 0.15 | balance | 0.05 - 0.2 | -     |

# **Typical Chemical Composition % - Copper**

| P     | Pb    | Cu+Ag | Fe    | S     | Zn    | Sn    | Sb    | As    | Ni    | Other |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.002 | 0.004 | 99.95 | 0.004 | 0.004 | 0.003 | 0.002 | 0.002 | 0.002 | 0.002 | 0.053 |



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