

## SCS703 CLF5160

*No Clean Core Wire*



### Product Description

With implementation of stringent manufacturing process, Asahi has developed a wide range of wires with diverse alloys and flux types to meet the varying requirements of specialised applications.

SCS703 CLF5160 lead free no clean core flux solder wire is formulated using purest raw chemicals together with halogen free materials, which guarantees absolute flux core continuity and consistency in solder properties. It provides excellent instant wetting action and superior solderability on a variety of surface finishes.

### Application

SCS703 CLF5160 lead free no clean core flux solder wire is easy to use for automatic, manual, rework, point and brush soldering. For the best soldering results, the recommended parameters are shown:

Solder Iron Tips: All Types especially the tapered types  
 Soldering Temp: >350  
 Soldering Time: 1 - 3 secs

- Keep solder iron tips clean.
- Tinned iron tips before use.
- Wear gloves when soldering to avoid contaminating the wire.

(Note: Soldering parameters are dependent on tip type, soldering station wattage configuration, wire diameter and type of applications.)

### Specification

Item	Result
Alloy Composition	Sn/Cu0.7/Si0.02 /Ag0.3
Flux Content	2.0   2.5   3.0   3.5   4.0 ± 0.3 wt%
Halide Content	Not detected
<small>JIS Z 3197 8.1.4.2.1</small> Water Extract Resistivity	> 1 x 10 <sup>5</sup> Ω-cm
<small>JIS Z 3197 8.1.1</small> Surface Insulation Resistance (85°C, 85%RH, 168hrs)	> 1 x 10 <sup>8</sup> Ω, Pass
<small>IPC-TM-650 2.6.3.3</small> Electromigration (85°C, 88.5%RH, 596hrs)	Pass
<small>IPC-TM-650 2.6.14.1</small> Copper Corrosion Test	Pass
<small>IPC-TM-650 2.6.15</small> <small>JIS Z 3197 8.4.1</small> Copper Mirror Test	Classified as "L", Pass
<small>IPC-TM-650 2.3.32</small> <small>JIS Z 3197 8.4.2</small> Flux Activity Classification	ROLO
<small>IPC J-STD-004</small> Spread Factor	> 75%
<small>JIS Z 3197 8.3.1.1</small> Residue Dryness Test	Dry
<small>JIS Z 3197 8.5.1</small> Residue Appearance	Light Yellowish

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### PHYSICAL PROPERTIES

Melting Temperature	217 - 229 °C
Coefficient of Thermal Expansion	19.7 $\mu\text{m}/\text{m}^\circ\text{C}$
Density	7.30 $\text{g}/\text{cm}^3$

### MECHANICAL PROPERTIES (As-Cast) (ASTM E8M 3mm/min at 23°C)

Tensile Strength	35.56 MPa
Yield Strength	25.81 MPa
Max Percent Strain	73.22 %
Energy to Yield Point	0.078 J
Energy to Break Point	15.42 J
Toughness	21.81 MPa

### RESIDUAL REMOVAL

Since the residues are transparent, minimal, dry, non-tacky and practically inert after soldering, removal is usually not necessary. For assemblies that require cleaning, the residue of SCS703 CLF5160 lead free no clean core flux solder wire can be completely removed by any solvent type flux cleaner available in the market.

### STORAGE

Store the solder wire in a cool, dry and non-corrosive environment. Wrap up the solder wire when not in use to reduce exposure to environment. SCS703 CLF5160 lead free no clean core flux solder wire can be kept for 2 years if proper storage conditions are observed.

### HEALTH and SAFETY

Wear a chemical mask if the operators are allergic to the fumes released during soldering. For more information, please refer to Material Safety Data Sheet.

### PACKAGING

SCS703 CLF5160 lead free core flux solder wire is commonly available in various diameters such as 0.5, 0.6, 0.8, 1.0, 1.2, 1.6 and 2.0 mm. For different diameters, please specify your requirements.

Packaging	0.25kg	0.50kg	1.0kg
Diameter (mm)	0.5 to 2.0	0.5 to 2.0	0.8 to 2.0

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