

Product Data Sheet

Sn60Pb40 FC5000

Halide Free No Clean Core Wire

Product Description

Over the last two decades, the electronics industry has been experiencing a rapid growth due to increasing use of electronic products in our daily life. The primary trend in these product designs is miniaturization. Products such cellular phones, personal computers and camcorders, are lighter, smaller, less expensive and at the same time, faster, more powerful, reliable, user-friendly and functional.

Using high purity chemicals and halide-free materials, Sn60Pb40 FC5000 gives a non-corrosive, minimal, clear yellow tinted residue due which exhibits excellent electrical and thermal insulation properties. Sn60Pb40 FC5000 is highly recommended for use in the no-clean process environment, thus eliminating the cost of cleaning.

Application

Sn60Pb40 FC5000 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: 270 - 350°C 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	Sn60Pb40
Flux Content	2.0 +/- 0.2 wt%
Density of Core Flux	
@ 25°C	0.866
Halide Content	Not added
JIS Z 3197 8.1.4.2.1	
Water Extract	$> 1 \times 10^4 \Omega$ -cm
Resistivity	
JIS Z 3197 8.1.1	
Surface Insulation	
Resistance	
(85°C, 85%RH, 168hrs)	
IPC-TM-650 2.6.3.3	$> 1 \times 10^8 \Omega$, Pass
JIS Z 3197 8.5.3	> 1 x $10^{11} \Omega$, Pass
Electromigration	Pass
(85°C, 88.5%RH, 596hrs)	
IPC-TM-650 2.6.14.1	
Copper Corrosion Test	Pass
IPC-TM-650 2.6.15	
JIS Z 3197 8.4.1	
Copper Mirror Test	Classified as "L",
IPC-TM-650 2.3.32	Pass
JIS Z 3197 8.4.2	
Flux Activity	ROL0
Classification	
IPC J-STD-004	
Spread Factor	> 90%
JIS Z 3197 8.3.1.1	
Residue Dryness Test	Dry
JIS Z 3197 8.5.1	
Residue Appearance	Clear Tint Yellow & Minimal



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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 Sn60Pb40 FC5000 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. Sn60Pb40 FC5000 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

Sn60Pb40 FC5000 no clean 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

DISCLAIMER OF LIABILITY

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