ALPHA® Telecore HF-850 Cored Solder Wire

Packaging may differ from region to region.

Alpha® Creates Value!

ALPHA® Telecore HF-850 Cored Solder Wire is an innovative halogen-free product developed to comply with the IEC and JPCA halogen content specifications. HF-850 delivers the following high value benefits:

- Meets highest industry standard for reliability
- Very fast wetting for excellent component touch-up operations and manual assembly
- Halogen-free feature allows use of HF-850 in processes in which other halogen-free soldering materials are used
- Very low flux spatter and low levels of fumes for operator friendly use and a cleaner working environment
- Clear non-tacky residue does not require cleaning
- Good spread characteristics improve first pass yield per JIS (>80%)
- Excellent joint appearance for easy inspection

ALPHA® Telecore HF-850 is suitable for use in any commercial no-clean soldering application that specifies compliance to the IPC ROL0 standard.

Alpha's SACX Plus® 0307 alloy option creates low-Ag soldering value versus the higher cost of higher-Ag alloys.

PERFORMANCE SACX PLUS® VALUE

alpha®

ALPHA® Telecore HF-850 Cored Solder Wire

Alpha® Creates Value!

ALPHA® Telecore HF-850 is the fastest wetting and lowest spattering halogen-free / halide-free cored solder wire Alpha offers. It performs well when benchmarked against competitive halogen-free / halide-free products, and it will meet most environmental requirements. HF-850's fast wetting meets drag soldering and other common soldering needs.

Technical Specifications

STANDARD	ALLOY DESCRIPTION	MELTING OR SOLIDUS/ LIQUIDUS TEMP °C	FLUX CONFIGURATION
Standard	SAC305	217-221	2.2% & 3.3%
Proprietary	SACX Plus® 0307	217-228	2.2% & 3.3%

Telecore HF-850 is also available in other or special alloys on request.

ALPHA® Telecore HF-850 is a Halogen Free product and passes the standards listed in the Table below:

HALOGEN STANDARDS			
STANDARD	**REQUIREMENT**	**TEST METHOD**	**STATUS**
IEC 612249-2-21	Post Soldering Residues contain <900 ppm each or total of <1500 ppm Br or Cl from flame retardant source	TM EN 14582	Pass
JEDEC A Guideline for Defining "Low Halogen" Electronics	Post soldering residues contain <1000 ppm Br or Cl from flame retardant source		Pass

PHYSICAL PROPERTIES	TYPICAL VALUES
Rosin Softening Point:	70-80°C
Acid Value:	180-200 mg KOH/g flux
Halide Content:	<500ppm per IPC J-STD-004
Classification:	IPC - ROL0
Shelf Life / Storage Temperature:	36 months / 10°C - 43°C

ELECTRICAL RELIABILITY TEST	REQUIREMENTS	RESULTS
JIS SIR Test (JIS-Z-3197)	1.0×10^{11} Ω minimum	PASS
IPC SIR Testing (J-STD-004A)	1.0×10^{8} Ω minimum	PASS
IPC SIR Testing (J-STD-004B)	1.0×10^{8} Ω minimum	PASS
Bellcore SIR Test (GR-78-CORE)	1.0×10^{11} Ω minimum	PASS
Bellcore EM Test (GR-78-CORE)	SIR(initial)/SIR(final) <10	PASS

CHEMICAL RELIABILITY TEST	REQUIREMENTS	RESULTS
Copper Mirror Test (JIS)	No complete removal of copper	PASS
Copper Mirror Test (IPC-TM 650 TM 2.3.32)	No complete removal of copper	PASS
Copper Corrosion Test JIS	No evidence of corrosion	PASS
Copper Corrosion Test (IPC-TM 650 TM 2.6.15)	No evidence of corrosion	PASS

For more information about ALPHA® Telecore HF-850 Cored Solder Wire, please contact your Alpha Representative.

alpha®

Worldwide/Americas Headquarters • 109 Corporate Boulevard • South Plainfield, NJ 07080 • USA • +1-814-946-1611 – Dial 0 • www.alphacpmd.com
European Headquarters • Forsyth Road • Sheerwater • Woking GU215RZ • United Kingdom • +44-1483-758-400
Asia-Pacific Headquarters • 1/F, Block A • 21 Tung Yuen Street • Yau Tong Bay • Kowloon, Hong Kong • +852-3190-3100

SM1099