



**KHOSLA ENGG.
PVT. LTD., PUNE.**

PRODUCT SPECIFICATION

**TITLE : MILDLY ACTIVATED
AND NON-CORROSIVE ROSIN
FLUX CORE SUPER DELUXE
QUALITY SOLDER WIRE**

Ref No. : PDS/906
ISSUE NO. : 1
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DATE : 19.07.2016
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1. **SCOPE:** This specification covers the requirement of 'khosla' super deluxe quality rosin cored solder wire of all the composition of solder wire.

2. **GENERAL:** Rosin cores solder wire will be manufactured from virgin quality non-ferrous metal alloys. Rosin will be of water white grade. Also the flux will be non-corrosive and mildly activated in nature, making the cleaning operation after soldering redundant other than for aesthetic purposes. The application of this solder wire is vast in industries like lamp industries, electrical, electronic assembling, but not for use on aluminum. .

3. **CHEMICAL COMPOSITION :**

1. The chemical composition of solder alloy will be as below: As per IS 1921:2005, IS 193, BS EN 29453 & J-STD 006A.

Sr. No.	Alloy/Composition	% of Tin	% of Lead	Melting Range (°c)
1	10/90 (Sn/Pb)	10 ± 0.5%	Remainder	268-290
2	15/85(Sn/pb)	15± 0.5%	Remainder	227-288
3	20/80 (Sn/pb)	20± 0.5%	Remainder	183-275
4	25/75(Sn/Pb)	25± 0.5%	Remainder	183-268
4	30/70(Sn/pb)	30± 0.5%	Remainder	183-255
5	40/60(Sn/pb)	40± 0.5%	Remainder	183-234
6	50/50(Sn/pb)	50± 0.5%	Remainder	183-212
7	60/40 (Sn/pb)	60± 0.5%	Remainder	183-188
8	63/37 (Sn/pb)	63± 0.5%	Remainder	183
9	70/30 (Sn/Pb)	70± 0.5%	Remainder	183 - 192
10	80/20 (Sn/Pb)	80 ± 0.5%	Remainder	183-199

4. **IMPURITIES :**

The maximum impurity levels will be as below : As per IS 1921:2005, SI 193 BS EN 29453 & J-std 006A.

Element	% of Element
Antimony	0.20%
Copper	0.08%
Arsenic	0.03%
Bismuth	0.10%
Iron	0.02%
Aluminum	0.005%
Zinc	0.003%
Cadmium	0.002%
Others	0.08%



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5 FLUX:

The core flux will be of mildly activated and non-corrosive type. Water white grade rosin shall contain an activating agent evenly distributed there in. The activator shall not contain more than 0.5 % by mass of halogen, calculated as chlorine. The activating agents will be of organic type. The flux shall be homogenous and uniformly distributed throughout the tudinal axis of wire. The activated and non activated types of rosin flux core wires are also available but only on customer request.

6 FLUX PERCENTAGE:

The mass of rosin flux in the core of solder wire, commonly termed as flux percentage shall be 1 to 3 percent of total mass flux core solder wire. If flux percent specified by customer it will be maintained within $\pm 0.2\%$ tolerance.

7. CORE: The core of Solder wire shall of single, three or five core.



Single core



Three core



Five core

8. FLUX RESIDUE :

- The flux residue shall be yellowish brown in color.
- The flux residue, when examined after an interval not more than 30 minutes of application. shall be non-tacky / sticky.

9 ACCEPTANCE CRITERIA :

- Flux % : Customer require/Specified $\pm 0.2\%$
- Surface Finish (Shine) : No burr, marking or cracks as per approved sample.

10 HANDLING AND STORAGE :

- This rosin core solder wire is wound on spools of 50 gm, 500 gm, and 3 kg or as per customer requirement and further labeled prior to be storage.
- This Solder wire to be stored in finish good stored.

11 SHELF-LIFE : This Solder Wire has infinite shelf life.

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