

TECHNICAL DATA SHEET

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| Alloy designation in accordance with ISO 9453:2014 | Sn60Pb40 |
| Other known alloy markings | S-Sn60Pb40 |
| Product type | Cored solder wire (with flux) |
| Flux | PRO |

1. General characteristics

The product is intended for professional use. The solder was produced in the first smelt of tin and lead. The composition of the solder complies with the ISO 9453:2014 standard. The solder contains rosin and halogen free flux. The flux PRO has good spread and its J-STD classification is ROM0. It is basic leaded alloy for manual, automatic and robotic processes used in industrial applications in electronics and electrical engineering, where meeting the requirements of the RoHS2 Directive is not required.

2. Chemical characteristics

- 2.1. Tin content: 60,0 ± 0,5%
- 2.2. Lead content: rest
- 2.3. Composition and permissible impurities according to ISO 9453:2014:

| Sn | Pb | Sb | Bi | Cu | Au | In | Ag | Al | As | Cd | Fe | Ni | Zn | others |
|------|------|------|------|------|------|------|------|-------|------|-------|------|------|-------|--------|
| 59,5 | rest | 0,20 | 0,10 | 0,08 | 0,05 | 0,10 | 0,10 | 0,001 | 0,03 | 0,002 | 0,02 | 0,01 | 0,001 | |
| 60,5 | | | | | | | | | | | | | | |

3. Physical characteristics

- 3.1. Melting point: (solidus/liquidus): 183/190 °C
- 3.2. Density: 8,50 g/cm³
- 3.3. Electrical conductivity: 0,153 μΩm
- 3.4. Thermal conductivity: 49 W/m K
- 3.5. Tensile strength: 535 kgf/cm²
- 3.6. Elongation at break: 40%
- 3.7. Hardness: 16 HB
- 3.8. Suggested operating temperatures (values that can be the starting point for process settings):
 - Soldering tip temperature: 340 - 420 °C.

4. PRO flux

The special activator system offers good thermal stability at pre-soldering temperatures ensuring that PRO flux performs extremely well on parts and surfaces which present poor or difficult soldering conditions. Residues of flux after soldering are isopropyl alcohol washable

- 4.1. Flux type: 1.1.3B (acc. to EN ISO 9454)
ROM0 (acc. to IPC-J-STD-004B)
- 4.2. Flux content: 2,5 ± 0,2%; 3 cores of flux (1 core of other flux content on request)
- 4.3. Halide content: 0,0 %
- 4.4. Acid Value: 305 ± 10 mg KOH/g
- 4.5. SIR test (PN-EN ISO 9455-17): failed (below 100 MΩ)

5. Product description

- 5.1. Available diameters: • 0,25 • 0,38 • 0,50 • 0,56 • 0,70 • 0,80 • 0,90 • 1,00 • 1,20 • 1,50 • 1,60 • 2,00 • 2,50 • 3,00 • 4,00 mm (other on request)
- 5.2. Packed: • 120 pcs / 6 kg (50 g reels) • 60 pcs / 6 kg (100 g reels) • 5 kg (250 g and 500 g reels) • 10 kg (1 kg reels) cartons
• vial Ø1,00 mm (10g, 16g) – cartons 600 pcs (other on request)
- 5.3. Reels and cartons marked with alloy type, flux type, diameter, net weight and batch number.

6. Storage

- 6.1. In original packaging at 5-20°C.
- 6.2. The recommended humidity level is 20-60%.
- 6.3. Keep away from strong oxidizing agents, acids, alkaline agents and beyond the reach of children
Expiration date - three years from the end of the year of production
for example: batch 61112233 = date of production 2016, date of expiry 2019

ISO 9001:2015
ISO 14001:2015