

Trade Name: GUMMIX 19 NH LFM-48

1. **Company Address:** Almit GmbH Ph.: +49 6066 96884-0
 Dekan-Groh-Straße 4 Fax: +49 6066 96884-18
 (D) 64720 Michelstadt - near Frankfurt

2. **Validity:** This specification is specified for:
 Almit-Solder-Wire GUMMIX 19 NH LFM-48
 Delivered by Almit GmbH to: _____

3. Diameter & Allowance:

| Diameter (mm) | | | | | | | | | | |
|---------------|-----|------|-----|------|-----|-----|-----|-----|-----|-----|
| 0.2 | 0.3 | 0.38 | 0.5 | 0.65 | 0.8 | 1.0 | 1.2 | 1.6 | 2.0 | 2.7 |
| ± 0.05 | | | | | | | | | | |

3.1. Deliverable Reel Size:

| Net Weight per Reel (kg) | | | |
|--------------------------|-----|-----|-----|
| 0.1 | 0.5 | 0.8 | 1.0 |
| + 0.01 -0.00 | | | |

4. Physical Properties:

| Solidus °C | Liquidus °C | Specific Gravity |
|------------|-------------|------------------|
| 217 | 220 | 7.4 |

5. Characterisitcs:

| Test | Characteristics | Test Methods |
|----------------------------|-----------------------|--------------------|
| Flux Content | 3,5% 3.0 ~ 4.0 (%) | IPC-TM-650:2.3.34 |
| Copper Mirror Test | pass | IPC-TM-650:2.3.32 |
| Silver Chromate | pass | IPC-TM-650:2.3.33 |
| Dryness | n.a | JIS-Z-3197:1999 |
| Flux materials composition | RE | J-Std-004:1.2 |
| Quantitative Halide | L0 < 0.0% | IPC-TM-650:2.3.35 |
| Solder spreading | n.a | IPC-TM-650;2.4.46 |
| SIR (85°C, 85%, 168hr) (Ω) | ≥ 1 x 10 ⁹ | IPC-TM-650:2.6.3.3 |
| Corrosion Test | pass | IPC-TM-650:2.6.15 |

6. Chemical Composition: (%)

| Composition | Components | | | | | | | |
|-------------|------------|---------|---------|-------|-------|--------|-------|-------|
| | Sn | Ag | Cu | Pb | Sb | Bi | Au | In |
| Standard | Rest | 3.0±0.2 | 0.5±0.2 | <0.05 | ≤0.10 | ≤0.05 | ≤0.05 | ≤0.10 |
| Composition | Components | | | | | | | |
| | Al | As | Cd | Fe | Ni | Zn | | |
| Standard | ≤0.001 | ≤0.03 | ≤0.002 | ≤0.02 | ≤0.01 | ≤0.001 | | |

7. **Lot Size:** A single lot contains 500kg which is the amount of one melting.

8. **Identification:**

| Reel | | Cardboard | |
|--------------|----------------------|------------------|----------------------|
| Name | GUMMIX 19 NH LFM-48 | Name | GUMMIX 19 NH LFM-48 |
| Flux Content | 3,5% | Flux Content | 3,5% |
| Diameter | mm | Diameter | mm |
| Net-Weight | e.g. 500g | Net-Weight | e.g. 5kg |
| Lot Nr. | e.g. 11.11.25 | Lot Nr. | e.g. 11.11.25 |
| Maker | Nihon Almit Co. Ltd. | Maker | Nihon Almit Co. Ltd. |

9. **Packing:**

| Individual Package | | Outer Package |
|---------------------------|----------------------|----------------------|
| Weight (kg) | Packing | Cardboard |
| 0.05 ; 0.1 ; 1.0 | Plastic Bag | |
| 0.5 ; 0.8 | Plastic Sheet | |

10. **Maker Address:** Nihon Almit Co. Ltd. - Productive Engineering Center
8154-227, Uenohara, Kitatsuru-gun, Yamanashi, 409-0112 Japan

11. **In case of changing this specification it should be accepted by:**

Signature _____ Date _____

12. This product is manufactured, using all guaranteed materials according to the legal law regulations.

13. **Shelf Life:**

Up to two (2) years from the manufactured date (lot number).