

**Trade Name: GUMMIX 19 CH 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 CH 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            | n.a                   | IPC-TM-650:2.3.33  |
| Dryness                    | pass                  | JIS-Z-3197:1999    |
| Flux materials composition | RE                    | J-Std-004:1.2      |
| Quantitative Halide        | M1 < 0.5%             | IPC-TM-650:2.3.35  |
| Solder spreading           | >70 (%)               | IPC-TM-650;2.4.46  |
| SIR (85°C, 85%, 168hr) (Ω) | ≥ 1 x 10 <sup>8</sup> | 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:**

| <b>Reel</b>  |                      | <b>Cardboard</b> |                      |
|--------------|----------------------|------------------|----------------------|
| Name         | GUMMIX 19 CH LFM-48  | Name             | GUMMIX 19 CH 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:**

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

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).