

PLASTHERM® 105 °C

PVC insulation

UL and cUL approval



- 1 • Bare or tin-plated copper core.
- 2 • Insulation: PVC.

Characteristics

General

- Continuous operating temperatures -30°C to +105 °C.
- Good resistance to chemical influences.
- Good alternate bending strength.

Electrical

- Rated voltage: as per style no.
- Test voltage: 10 x Rated voltage.

Standard products

- All colours including two-coloured.
- Stranding of conducting cores: contact us.

Approvals - standards

- UL and cUL approval (CSA) as per standard UL 758 and C22.2 No. 210 – File no.: E101965.
- "Horizontal flame test" as per UL approval.
- "FT1 flame rating" as per cUL approval.

Applications

- Internal cabling for electrical or electronic appliances, computers, etc..

Options

- Other nominal cross-sections: contact us.
- Other style nos. available: styles no. 1028, 1484, 1500, 1504, 1647, 1650, 10070, 10236, 11122, 11287.
- Available PVC 90 °C insulated style nos.: styles no. 1706, 1013, 1024, 1026, 1027, 1207, 1499, 10321, 1032, 1444: contact us.
- Nylon sleeving for certain Style number, consult us.
- Vertical flame test VW1 for style 1015: : consult us.

For this product, please contact:

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omerin@omerin.com



| Style no. | 1569-VW-1 | 10198 | 1896 | 10012 |
|-----------|----------------|----------------|----------------|----------------|
| Approval | 105 °C – 300 V | 105 °C – 300 V | 105 °C – 300 V | 105 °C – 600 V |

| Nominal cross-section | | Average thickness of insulation (mm) | Nominal diameter* (mm) | Average thickness of insulation (mm) | Nominal diameter* (mm) | Average thickness of insulation (mm) | Nominal diameter* (mm) | Average thickness of insulation (mm) | Nominal diameter* (mm) |
|-----------------------|--------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|
| AWG | (mm ²) | | | | | | | | |
| 30 | 0.05 | 0.38 | 1.1 | 0.38 | 1.1 | - | - | 0.51 | 1.3 |
| 28 | 0.09 | 0.38 | 1.15 | 0.38 | 1.15 | - | - | 0.51 | 1.4 |
| 26 | 0.13 | 0.38 | 1.2 | 0.38 | 1.25 | 0.89 | 2.3 | 0.51 | 1.5 |
| 24 | 0.22 | 0.38 | 1.4 | 0.38 | 1.4 | 0.89 | 2.4 | 0.51 | 1.65 |
| 22 | 0.34 | 0.38 | 1.6 | 0.38 | 1.5 | 0.89 | 2.55 | 0.51 | 1.8 |
| - | 0.5 | 0.38 | 1.7 | 0.38 | 1.7 | 0.89 | 2.7 | 0.51 | 1.95 |
| 20 | 0.6 | 0.38 | 1.8 | 0.38 | 1.75 | 0.89 | 2.75 | 0.51 | 2.0 |
| - | 0.75 | 0.38 | 1.9 | 0.38 | 1.9 | 0.89 | 2.9 | 0.51 | 2.15 |
| 18 | 0.93 | 0.38 | 2.05 | 0.38 | 2.0 | 0.89 | 3.1 | 0.51 | 2.25 |
| - | 1 | 0.38 | 2.1 | 0.38 | 2.1 | 0.89 | 3.1 | 0.51 | 2.35 |
| 16 | 1.34 | 0.38 | 2.3 | 0.38 | 2.3 | 0.89 | 3.4 | 0.51 | 2.5 |
| - | 1.5 | 0.38 | 2.4 | 0.38 | 2.4 | 0.89 | 3.4 | 0.51 | 2.7 |
| 14 | - | 0.38 | 2.7 | 0.51 | 2.9 | 0.89 | 3.7 | 0.51 | 2.9 |
| - | 2.5 | 0.38 | 2.8 | 0.51 | 3.1 | 0.89 | 3.9 | 0.51 | 3.1 |
| 12 | - | 0.38 | 3.2 | 0.51 | 3.4 | 0.89 | 4.3 | 0.51 | 3.4 |
| - | 4 | 0.38 | 3.4 | 0.51 | 3.65 | 0.89 | 4.5 | 0.51 | 3.65 |
| 10 | - | 0.38 | 3.8 | 0.51 | 4.0 | 0.89 | 4.9 | 0.51 | 4.0 |
| - | 6 | 0.38 | 4.0 | 0.51 | 4.2 | 0.89 | 5.1 | 0.51 | 4.2 |
| 8 | - | 0.76 | 5.5 | 0.76 | 5.5 | 0.89 | 5.8 | 0.76 | 5.5 |
| - | 10 | 0.76 | 6.1 | 0.76 | 6.1 | 0.89 | 6.4 | 0.76 | 6.1 |
| 6 | - | 0.76 | 6.9 | 0.76 | 6.9 | 0.89 | 7.1 | 1.14 | 7.6 |
| - | 16 | 0.76 | 7.2 | 0.76 | 7.2 | 0.89 | 7.4 | 1.14 | 7.7 |
| 4 | - | 0.76 | 8.1 | 0.76 | 8.1 | 0.89 | 8.4 | 1.14 | 8.9 |
| - | 25 | 0.76 | 8.6 | 0.76 | 8.6 | 0.89 | 9.0 | 1.14 | 9.4 |
| 2 | 35 | 0.76 | 9.7 | 0.76 | 9.7 | 0.89 | 10.0 | 1.14 | 10.5 |
| 1 | - | - | - | 1.02 | 11.4 | 0.89 | 11.2 | 1.52 | 12.4 |
| - | 50 | - | - | 1.02 | 11.8 | 0.89 | 11.5 | 1.52 | 12.8 |
| 1/0 | - | - | - | 1.02 | 12.5 | 0.89 | 12.2 | 1.52 | 13.5 |
| 2/0 | 70 | - | - | 1.27 | 14.1 | 0.89 | 13.3 | 1.52 | 14.6 |
| 3/0 | - | - | - | 1.27 | 15.7 | 0.89 | 14.9 | 1.52 | 16.2 |
| - | 95 | - | - | 1.27 | 15.8 | 0.89 | 15.1 | 1.52 | 16.3 |
| 4/0 | - | - | - | 1.27 | 17.3 | 0.89 | 16.5 | - | - |
| - | 120 | - | - | 1.27 | 17.6 | 0.89 | 16.8 | - | - |

Conducting metal

- KEY**
Conducting metals
B Tin-plated copper
B* Tin-plated copper (e > 0.38 mm)
C Nickel-plated copper
D Silver-plated copper
E Nickel
F Bare copper
F* Bare copper (e > 0.38 mm)
G Nickel-plated copper 27 %
- AWM I A Internal wiring, not subject to mechanical abuse
AWM I A/B Internal wiring
AWM II A/B External or Internal wiring
- NS Not Specified
VNS Voltage Not Specified
- : UL approved nominal cross-sections only.

* The diameter is provided for information purposes as it may vary depending on the stranding of the core. Only the average thickness of insulation should be taken into account.

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The information provided in this technical data sheet is indicative and may be modified without prior notice, laying, wiring and electrical conditions and the environment of the cable can not be fully considered in our studies. In no way the company OMERIN shall be held responsible for any incidents in the case of inappropriate uses, particularly in the case of wiring conditions that do not respect the good practice and the standards in force. For an optimum use of the cables produced by our company, we recommend testing in real conditions. Our sales department is available for a possible provision of samples, and/or for the conditions of a complete study in our laboratories.
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| Style no. | | 1015 | | 1283 | | 1897 | | 10914 | | 10271 | | 10269 | |
|-----------------------|--------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|--------------------------------------|------------------------|
| Approval | | 105 °C – 600 V | | 105 °C – 600 V | | 105 °C – 600 V | | 105 °C – 1 000 V | | 105 °C – 1 000 V | | 105 °C – 1 000 V | |
| Nominal cross-section | | Average thickness of insulation (mm) | Nominal diameter* (mm) | Average thickness of insulation (mm) | Nominal diameter* (mm) | Average thickness of insulation (mm) | Nominal diameter* (mm) | Average thickness of insulation (mm) | Nominal diameter* (mm) | Average thickness of insulation (mm) | Nominal diameter* (mm) | Average thickness of insulation (mm) | Nominal diameter* (mm) |
| AWG | (mm ²) | | | | | | | | | | | | |
| 30 | 0.05 | 0.76 | 1.85 | - | - | - | - | - | - | 0.51 | 1.3 | 0.76 | 1.85 |
| 28 | 0.09 | 0.76 | 1.9 | - | - | - | - | 0.38 | 1.15 | 0.51 | 1.4 | 0.76 | 1.9 |
| 26 | 0.13 | 0.76 | 2.1 | - | - | 0.89 | 2.3 | 0.38 | 1.2 | 0.51 | 1.5 | 0.76 | 2.1 |
| 24 | 0.22 | 0.76 | 2.2 | - | - | 0.89 | 2.4 | 0.38 | 1.4 | 0.51 | 1.65 | 0.76 | 2.2 |
| 22 | 0.34 | 0.76 | 2.3 | - | - | 0.89 | 2.55 | 0.38 | 1.6 | 0.51 | 1.75 | 0.76 | 2.3 |
| - | 0.5 | 0.76 | 2.45 | - | - | 0.89 | 2.7 | 0.38 | 1.7 | 0.51 | 1.95 | 0.76 | 2.45 |
| 20 | 0.6 | 0.76 | 2.6 | - | - | 0.89 | 2.75 | 0.38 | 1.8 | 0.51 | 2.0 | 0.76 | 2.5 |
| - | 0.75 | 0.76 | 2.65 | - | - | 0.89 | 2.9 | 0.38 | 1.9 | 0.51 | 2.15 | 0.76 | 2.65 |
| 18 | 0.93 | 0.76 | 2.8 | - | - | 0.89 | 3.2 | 0.38 | 2.05 | 0.51 | 2.3 | 0.76 | 2.8 |
| - | 1 | 0.76 | 2.8 | - | - | 0.89 | 3.2 | 0.38 | 2.1 | 0.51 | 2.35 | 0.76 | 2.8 |
| 16 | 1.34 | 0.76 | 3.0 | - | - | 0.89 | 3.4 | 0.38 | 2.3 | 0.51 | 2.5 | 0.76 | 3.1 |
| - | 1.5 | 0.76 | 3.1 | - | - | 0.89 | 3.4 | 0.38 | 2.4 | 0.51 | 2.7 | 0.76 | 3.1 |
| 14 | - | 0.76 | 3.45 | - | - | 0.89 | 3.7 | 0.38 | 2.7 | 0.51 | 2.9 | 0.76 | 3.5 |
| - | 2.5 | 0.76 | 3.6 | - | - | 0.89 | 3.9 | 0.38 | 2.8 | 0.51 | 3.1 | 0.76 | 3.6 |
| 12 | - | 0.76 | 3.9 | - | - | 0.89 | 4.4 | 0.38 | 3.2 | 0.51 | 3.4 | 0.76 | 3.9 |
| - | 4 | 0.76 | 4.3 | - | - | 0.89 | 4.5 | 0.51 | 3.65 | 0.51 | 3.65 | 0.76 | 4.3 |
| 10 | - | 0.76 | 4.5 | - | - | 0.89 | 4.9 | 0.51 | 4.0 | 0.51 | 4.0 | 0.76 | 4.5 |
| - | 6 | 0.76 | 4.8 | - | - | 0.89 | 5.1 | 0.76 | 4.8 | 0.51 | 4.2 | 0.76 | 4.8 |
| 8 | - | 1.14 | 6.2 | 1.52 | 7.0 | 0.89 | 5.8 | 0.76 | 5.5 | 0.76 | 5.5 | 1.14 | 6.2 |
| - | 10 | 1.14 | 6.6 | 1.52 | 7.6 | 0.89 | 6.4 | 0.76 | 6.1 | 0.76 | 6.1 | 1.14 | 6.6 |
| 6 | - | 1.52 | 8.2 | 1.52 | 8.2 | 0.89 | 7.1 | 0.76 | 6.9 | 1.14 | 7.6 | 1.52 | 8.2 |
| - | 16 | 1.52 | 8.6 | 1.52 | 8.6 | 0.89 | 7.4 | 0.76 | 7.2 | 1.14 | 7.7 | 1.52 | 8.6 |
| 4 | - | 1.52 | 9.6 | 1.52 | 9.6 | 0.89 | 8.4 | 1.0 | 8.6 | 1.14 | 8.9 | 1.52 | 9.6 |
| - | 25 | 1.52 | 10.0 | 1.52 | 10.0 | 0.89 | 9.0 | 1.0 | 9.1 | 1.14 | 9.4 | 1.52 | 10.0 |
| 2 | 35 | 1.52 | 11.4 | 1.52 | 11.0 | 0.89 | 10.0 | 1.0 | 10.2 | 1.14 | 10.5 | 1.52 | 11.1 |
| 1 | - | 2.03 | 13.0 | - | - | 0.89 | 11.2 | 1.27 | 11.9 | 1.52 | 12.4 | 2.03 | 13.0 |
| - | 50 | 2.03 | 14.2 | - | - | 0.89 | 11.5 | 1.27 | 12.3 | 1.52 | 12.8 | 2.03 | 14.2 |
| 1/0 | - | 2.03 | 14.6 | - | - | 0.89 | 12.2 | 1.27 | 13.0 | 1.52 | 13.5 | 2.03 | 14.6 |
| 2/0 | 70 | 2.03 | 16.2 | - | - | 0.89 | 13.3 | 1.27 | 14.1 | 1.52 | 14.6 | 2.03 | 16.2 |
| 3/0 | - | 2.03 | 17.6 | - | - | 0.89 | 14.9 | 1.27 | 15.7 | 1.52 | 16.2 | 2.03 | 17.6 |
| - | 95 | 2.03 | 17.8 | - | - | 0.89 | 15.1 | 1.27 | 15.8 | 1.52 | 16.3 | 2.03 | 17.8 |
| 4/0 | - | 2.03 | 19.1 | - | - | 0.89 | 16.5 | 1.27 | 17.3 | - | - | 2.03 | 19.1 |
| - | 120 | 2.03 | 20.5 | - | - | 0.89 | 16.8 | 1.52 | 19.5 | - | - | 2.03 | 20.5 |

Conducting metal

BCDEFG

BCDEFG

BCDEFG

BCDEFG

BCDEFG

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KEY

- Conducting metals
- B Tin-plated copper
- B* Tin-plated copper (ø > 0.38 mm)
- C Nickel-plated copper
- D Silver-plated copper
- E Nickel
- F Bare copper
- F* Bare copper (ø > 0.38 mm)
- G Nickel-plated copper 27 %

- AWM I A Internal wiring, not subject to mechanical abuse
- AWM I A/B Internal wiring
- AWM II A/B External or Internal wiring

- NS Not Specified
- VNS Voltage Not Specified

■: UL approved nominal cross-sections only.

For this product, please contact:

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