



# NMD90 Copper SIMpull<sup>®</sup> Romex<sup>®</sup> Brand

300 Volts / -25°C Min, 90°C Max. Copper Conductors

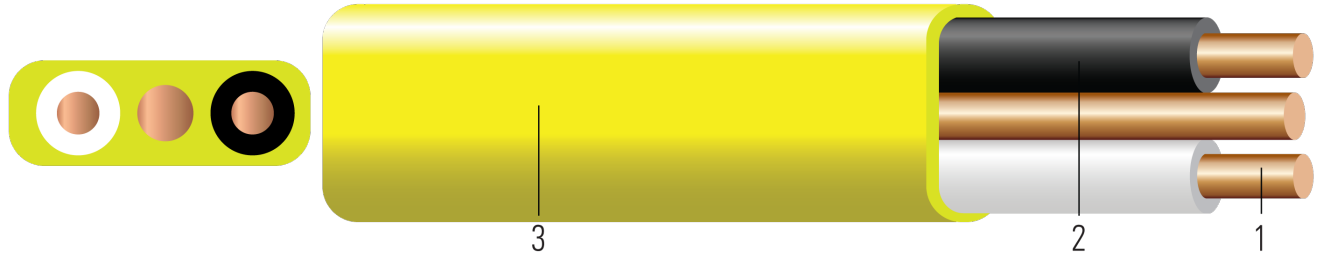


Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Solid per ASTM B3 or Combination unilay-stranded copper conductors per ASTM B787.
2. **Insulation:** All phases are insulated with Polyvinyl Chloride with Nylon Sheath
3. **Jacket:** Polyvinyl Chloride PVC jacket utilizing SIMpull<sup>®</sup> Technology.

## Conductor Color Code:

- 2/C: Black, White
- 3/C: Black, White, Red

## Jacket Color Code:

- White: General Residential Wiring
- Red: 2 Black and Red conductors - 208V-240V Circuits (no neutral)
- Orange: No. 10 AWG General Residential Wiring
- Yellow: No. 12 AWG General Residential Wiring
- Blue: No. 14 AWG - 2 black and white conductors - 120V Arc Fault Circuit Interupter Applications

## APPLICATIONS AND FEATURES:

Southwire's Romex<sup>®</sup> SIMpull<sup>®</sup> NMD90 cables may be used for both exposed work in dry locations or concealed work in dry or damp locations.

The maximum allowable conductor temperature is 90°C. The minimum recommended installation temperature is -25°C for two-conductor cables and -10°C for three-conductor cables (with suitable handling procedures). Material should be properly stored above 0°C for 24 hours prior to installation. The maximum voltage rating for all intended applications is 300 volts. Consult the Canadian Electrical Code<sup>1</sup> for further information related to applications.

## SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B787 19 Wire Combination Unilay-Stranded Copper Conductors
- CSA C22.2 No. 48 non-metallic sheathed cable
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test





**SAMPLE PRINT LEGEND:**

SOUTHWIRE CSA LL90458 12 AWG 2 CDRS BLACK/WHITE NMD90 NYLON ROMEX(R) BRAND SIMpull (TM) (-25C) 300 VOLTS FT1 COVERED & MADE UNDER U.S. PAT. NOS 7557301 & 7411129. [Jacket Colour is yellow]

**Table 1 – Weights and Measurements**

| Stock Number   | Cond. Size    | Conductor Number | Diameter Over Conductor | Conductor Stranding | Insulation Thickness | Ground Size  | Jacket Thickness | Approx. OD | Copper Weight | Overall Weight |
|----------------|---------------|------------------|-------------------------|---------------------|----------------------|--------------|------------------|------------|---------------|----------------|
|                | AWG/<br>Kcmil |                  | inch                    |                     | mils                 | No. x<br>AWG | mil              | inch       | lbs/1000ft    | lbs/1000ft     |
| 12 AWG   Solid |               |                  |                         |                     |                      |              |                  |            |               |                |
| 471805◇        | 12            | 3                | 0.080                   | Solid               | 35                   | 1x14         | 30               | 0.428      | 72            | 118            |

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

**Table 2 – Electrical and Engineering Data**

| Cond. Size     | Conductor Number | Min. Bend Radius | DC Resistance at 25°C | AC Resistance at 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity Raceway 75°C | Allowable Ampacity Raceway 90°C |
|----------------|------------------|------------------|-----------------------|-----------------------|----------------------------|---------------------------------|---------------------------------|
| AWG/<br>Kcmil  |                  | Inches           | Ω/1000ft              | Ω/1000ft              | Ω/1000ft                   | Amp                             | Amp                             |
| 12 AWG   Solid |                  |                  |                       |                       |                            |                                 |                                 |
| 12             | 3                | 1.700            | 1.662                 | 2.002                 | 0.054                      | 25                              | 30                              |

† Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

† Ampacities have been adjusted for more than Three Current-Carrying Conductors.

\* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.

