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Installation Guidelines for Surface Nonmetallic Raceway

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Foreword

The purpose of these guidelines is to describe the procedures and recommended practices for properly installing surface nonmetallic raceway (SNR) and SNR fittings.

These guidelines are in no way intended to assume or replace any responsibilities of engineers, customer representatives, owners, or other persons in establishing engineering design practices and procedures best suited to individual job conditions.

The NEMA Polymer Raceway Products Section, through its Members, works closely with such organizations as the National Electrical Contractors Association and others in the periodic review and revision of its Standards for any changes necessary to keep them up to date with evolving technology. Proposed or recommended revisions should be submitted to:

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These guidelines were developed and approved by the NEMA Polymer Raceway Section. At the time of approval, the Polymer Raceway Section consisted of the following Members:

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Atkore International	Harvey, IL
Champion Fiberglass, Inc.	Spring, TX
Electri-Flex Company	Poser, IL
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1 Scope

These guidelines provide information on the proper application and installation of surface nonmetallic raceway (SNR) permitted for use in dry locations, non-hazardous locations, and areas not subject to physical abuse, in accordance with the *National Electrical Code*[®] (NEC[®]) and the *Canadian Electrical Code* (CE Code), Part I.

These guidelines cover requirements of the CE Code, Part I, NEC[®] and applicable building codes, as well as recommended practices concerning installation tools, handling and storage, raceway cutting, bending, securing and supporting, fittings and boxes, transition, divider wall(s) and accessories, wire fill, splices and taps, grounding, cleaning, and installation verification.

2 Codes and Standards

2.1 Uses Permitted

The following are uses permitted, according to NEC[®] 388.10 and the CE Code, Part I, Rule 12-1602 (Use of Surface Raceways):

- a. In dry locations.
- b. As an extension through walls and floors. The raceway shall pass transversely through dry walls, dry partitions, and dry floors if the length passing through is unbroken. Access to the conductors shall be maintained on both sides of the wall, partition, or floor.
- c. For Canada, compliance with FT4 flammability classification requirements.

2.2 Uses Not Permitted

The following are uses not permitted, according to NEC[®] 388.12 and the CE Code, Part I, Rules 12-1602 (Use of Surface Raceways), 12-1604 (Temperature Limitations), and 12-1608 (Maximum Voltage):

- a. Where concealed.
- b. Where subject to severe physical damage.
- c. For voltage 300 V or more between conductors, unless approved for higher voltage.
- d. In hoistways.
- e. In any hazardous (classified location).
- f. In ambient temperatures exceeding those for which the raceway is approved.
- g. For conductors whose insulation temperature exceeds those for which the raceway is approved.

2.3 References

CSA Group
178 Rexdale Blvd
Etobicoke, Ontario M9W 1R3
Canada

CSA C22.1-18, Part 1
CAN/CSA-C22.1 No. 62.1:15 (R2020)

*Canadian Electrical Code
Nonmetallic Surface Raceways and Fittings*

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