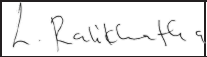


PERFORMANCE SPECIFICATION: PVC POWER SKIRTING

Signatures						
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1.0 SCOPE

- 1.1 This specification defines the technical, performance, and installation requirements for PVC power skirting systems to be used for electrical and data cable distribution within TNPA facilities. The system shall provide a continuous, protected, and accessible cable management solution along walls and skirting levels while maintaining separation between power and communication services.
- 1.2 The complete system shall comprise of trunking bases, flexible snap-on covers, internal and external angles, flat angles, junctions, end caps, mounting accessories, and provisions for the integration of electrical sockets, switches, and data modules. All components shall form part of a coordinated modular system designed for seamless assembly and aesthetic uniformity.

2.0 REFERENCES

All materials and manufacturing shall comply with the latest editions of the following standards, codes, and regulations, unless otherwise specified:

Electrical Safety & Wiring

SANS 10142-1 - The Wiring of Premises - Low Voltage Installations

SANS 1197 - Specification for Power Skirting Systems

Cable Management Systems

IEC 61084-2-1 / EN 50085-2-1 - Cable Trunking Systems and Cable Ducting Systems for Electrical Installations

Enclosures & Protection

IEC 60529 - Degrees of Protection Provided by Enclosures (IP Code)

EN 62262 / IEC 62262 - Degrees of Protection Provided by Enclosures for Electrical Equipment Against External Mechanical Impacts (IK Code)

Fire Safety & Material Performance

IEC 60695-2-11 - Glow-wire flammability test method for end products

IEC 60695-2-12 - Glow-wire flammability test method for materials

Quality & Compliance

ISO 9001 - Quality Management Systems — Requirements

RoHS / REACH - Environmental and Material Compliance Directives

Local Regulations

All applicable local building regulations, fire safety codes, and occupational health and safety acts.

3.0 SERVICE CONDITIONS

- 3.1 The PVC power skirting shall be suitable for indoor installation and operation in environments with ambient temperatures ranging from -5°C to $+60^{\circ}\text{C}$. The material shall retain its mechanical and electrical integrity throughout this range without deformation, cracking, or discoloration.
- 3.2 The system shall be non-flame propagating and shall achieve a minimum IP40 degree of protection when installed with all covers and accessories correctly fitted. The components shall also comply with IK07 impact resistance, ensuring adequate mechanical protection against accidental impacts during operation and maintenance.

4.0 STANDARD OF EQUIPMENT

- 4.1 The power skirting system shall be of modular construction, allowing for future adaptation or extension without the need for major alteration to the existing installation. The design shall allow both wall-mounted and floor-supported configurations and shall accommodate electrical and data wiring in separate, clearly defined compartments.
- 4.2 All system components shall be designed and manufactured to ensure compatibility with commonly available modular wiring accessories for power, data, and communication services, supplied by recognised manufacturers and approved by the Engineer.
- 4.3 The overall design shall maintain an aesthetically pleasing appearance consistent with modern building interiors.

5.0 MATERIALS AND FINISHES

- 5.1 All trunking bases and covers shall be manufactured from high-impact, non-conductive, self-extinguishing PVC (polyvinyl chloride) that is free from lead, cadmium, or any other hazardous additives. The PVC compound shall incorporate UV stabilisers to prevent yellowing and maintain colour uniformity over time.

- 5.2 The snap-on covers shall be flexible and designed to ensure secure engagement with the base using an audible “click” mechanism. The cover shall be removable only with the aid of a tool to prevent accidental dislodging during normal use. Covers shall be available in widths ranging from 40 mm to 180 mm, depending on the project requirement.
- 5.3 All visible surfaces shall be finished smooth, with a UV-stable, scratch-resistant coating in white, grey, or black. The final colour shall be confirmed by the Engineer to match the interior design palette of the project.

6.0 SYSTEM DESCRIPTION

- 6.1 The system shall consist of trunking bases with one, two, or three internal compartments, as required by the design, with clip-on partitions ensuring complete segregation between power, data, and communication services. The covers shall be flexible snap-on types, designed for rapid installation and easy removal for cable maintenance.
- 6.2 A full range of accessories shall be provided, including internal and external adjustable angles (internal adjustable between 80° and 100°, and external adjustable between 60° and 120°), flat angles, junctions, end caps, and cover joints, ensuring neat transitions at all changes in direction or capacity.
- 6.3 The system shall allow the direct integration of modular electrical and data wiring accessories through clip-on supports. Each accessory shall be securely retained within the trunking body and maintain the required electrical clearances and mechanical strength.
- 6.4 The trunking system shall be installed using approved fixing methods. The retention of the covers and accessories shall be positive and secure, preventing accidental disengagement. Covers shall be removable for inspection and maintenance without damage to the underlying structure.

7.0 FUNCTIONAL AND PERFORMANCE REQUIREMENTS

- 7.1 The PVC power skirting shall provide safe and efficient routing for both electrical and data cabling, maintaining clear segregation between services through the use of integral partitions. The system shall maintain an insulation resistance greater than 5 MΩ and provide adequate protection against mechanical damage, dust ingress, and incidental contact.

- 7.2 The system shall maintain a continuous and uniform appearance along the entire installation length. Joints between sections shall be tight-fitting, with no visible gaps or misalignments. Expansion joints shall be provided where necessary to accommodate thermal expansion and contraction of the PVC material.
- 7.3 All junction and angle accessories shall allow smooth cable transitions without exceeding the minimum bend radius specified for the cables contained within the system. The system shall be designed to accommodate modular wiring frames of up to six modules per mounting point.
- 7.4 The cover shall withstand an impact energy of at least 2 J without cracking or deformation, as tested in accordance with EN 50085-2-1. The material shall not propagate flame and shall comply with the glow-wire test at 650 °C.
- 7.5 The trunking and accessories shall retain their colour and finish under prolonged exposure to indoor lighting and indirect sunlight. The system shall exhibit resistance to common cleaning agents and shall not deform or lose mechanical strength in humid or coastal environments.

8.0 WARRANTY AND DOCUMENTATION

- 8.1 All products supplied under this specification shall carry a minimum warranty period of 12 months from the date of practical completion. The warranty shall cover defects in material, workmanship, or performance under normal service conditions.
- 8.2 The Contractor shall submit comprehensive product datasheets, installation drawings, and operation and maintenance manuals as part of the project handover documentation. These documents shall include details on installation methods, cleaning instructions, spare parts availability, and manufacturer contact details.
- 8.3 The manufacturer shall provide continued technical support for the duration of the warranty period and shall ensure the availability of compatible replacement components for a minimum of five years after project completion.

9.0 QUALITY ASSURANCE

- 9.1 All components of the power skirting system shall be manufactured in facilities certified under ISO 9001 quality management systems. Products shall be tested in accordance with the relevant IEC and EN standards for trunking systems.
- 9.2 The Contractor shall submit representative samples of all trunking profiles, covers, and accessories for inspection and approval prior to bulk procurement. The approved

samples shall serve as the benchmark for quality, colour, and finish during the remainder of the project.

- 9.3 Each batch shall be accompanied by manufacturer's test certificates confirming compliance with impact, insulation resistance, and flammability requirements.