

Description

Pemsaband Vulcan Heavy Duty perforated metal cable tray with quick-connect system, available in 50mm height, made of steel with PG and AZ+ protection systems. The quick-connect system features tool-free fastening clips, saving on material and labour costs. Of 50 mm height, Width 75 mm, With PG protection system. The Pemsaband® Vulcan Heavy Duty cable tray is designed for supporting and routing electrical and telecommunications cables for heavy duty loads. The Pemsaband® Vulcan product range has been designed in accordance with the technical requirements of IEC 61537, Edition 3, and BS-EN 61537.

Advantages

High corrosion resistance. Available in PG and AZ+ protection systems. Class 3 and Class 8 according to BS EN 61537

Wide range of sizes and accessories. Dividers, Covers, Bends, T-joints, Crossovers, Risers, brackets and accessories for connecting lighting or devices.

Slot pattern designed to facilitate cable fixing.

New design of profile and safety edge. The contact area increases by 80%. Increases the contact surface between the cable tray and cover, ensuring electrical continuity in accordance with Edition 3 of the IEC 61537 standard

VulcanFast quick-connect system with tool-free, quick-fixing clips saves on material and labuor costs. Reduces installation time by 3x.

Applications

A system designed for the management, support, transport and distribution of cables in electrical and/or telecommunications installations. It is applicable to, among others, the following areas: - Buildings, including public buildings, shopping centres, and Data Centres (DCs) . - Civil works and infrastructure, such as tunnels, Car parks, airports and railways and underground/metro lines. - The service and industrial sectors, being suitable for applications in the manufacturing, chemical and food industries. The system is suitable for rapid installation indoors in controlled atmospheres, as well as in outdoor installations or humid environments, selecting the appropriate protection and finishing system in each case based on the environmental and service conditions.

Solutions



Product data			
ETIM 10		EC000047	
Huella de CO2. GWP A1-A3 (kg CO2 eq.)			
Protection System		PG	
Finish		PG3, Pregalvanised	
Resistance Class		Class 3	
Flange (mm)		50	
Width (mm)		75	
Length (m)		3	
Material		Steel with surface coating	
Impact Strength (J)		20 J	
Section (mm2)		3611	
IP		IP23	
Working temperature range (°C)		-50 / 150 °C	
Fire resistance		A1 No combustible	

 **Protection System**

CU - Copper electroplated

PG - Pregalvanised

EZ - Electrogalvanised

BC - Electrogalvanised Bichromate

BK8 - High Resistance Coating

GC - Hot Dip Galvanising

INOX - Stainless Steel

PT - Polyester Paint

AL - Aluminum

LN - Brass or Nickel-plated brass

 **Insulating materials**

PC+ABS - Halogen Free Polycarbonate + ABS

PVC - Polyvinyl Chloride

PP - Halogen Free Polypropylene

PA6 - Halogen Free Polyamide 6

PA12 - Halogen Free Polyamide 12

PU - Polyurethane

PE - Polyethylene

NBR - NBR rubber

PET - Thermoplastic Polyester

TPV - Thermoplastic

Load diagrams

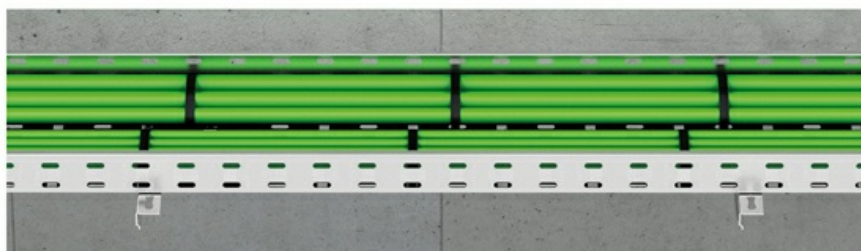


Technical data

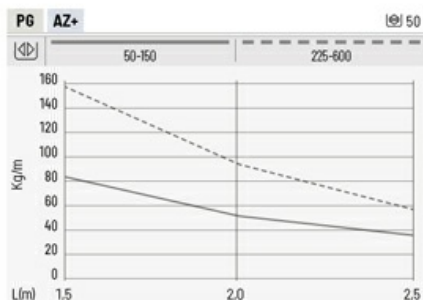
Test for safety working loads installed in the horizontal way

Values obtained in accordance with IEC 61537, edition 3, according to the horizontal tests of multiple spans listed in point 10.3.4 of this standard, with a safety factor of 170% and without collapse in any case.

The safety working loads test on the 750 and 900 mm wide cable trays were carried out in accordance with the test method set out in section 10.4, and also included a safety factor of 170%.



Working loads for widths of 750 and 900 mm on request



Working loads for widths of 750 and 900 mm on request





Technical data

The technical data for the Pemsaband® Vulcan cable tray range, based on tests carried out in accordance with the international product standard IEC 61537, 3rd edition, is set out below.

Classification according to:  BS-EN 61537	
Type of material	Metallic
According to flame propagation	No flame propagation
Electrical continuity	With electrical continuity
Maximum impedance of a joint of cable trays	<50 mΩ
Maximum impedance along the length of a cable tray	<50 mΩ/m
Maximum impedance along the width of a cable tray	<50 mΩ
Maximum impedance between length and cover	<50 mΩ
Maximum impedance between the length and equipotential bonding (references 68000034 and 68000035, installed according to assembly instructions)	<50 mΩ
Electrical conductivity	Conductive
Resistance against corrosion	
Pregalvanized PG	Class 3
Hot Dip Galvanising GC	
AZ+ High resistance alloy	Class 8
Temperature of transport, storage, installation and use	
Minimum temperature	-50 °C
Maximum temperature	+150 °C
Perforation in the base area	
Pemsaband® Vulcan Perforated	B Classification
Impact strength	Up to 20 J
SWL test (Safety working loads)	
Horizontal SWL test	Spans 0.5, 1, 1.5, 2 and 2.5 meters





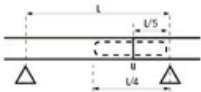
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Safe working load test conditions for cable trays EN61537

Support Span	0.5 m - 1 m - 1.5 m - 2 m - 2.5 (depending on cable tray height)
Longitudinal deflection	Less than 1% support span
Transverse deflection	Less than 5% of the cable tray width
Placement of joints	$(L/4) > u > (L/5)$ 
Increased safety coefficient	1.7 times the declared safe working load

The safety working loads test on the 750 and 900 mm wide cable trays were carried out in accordance with the test method set out in section 10.4, and also included a safety factor of 170%.

Maximum Fill Capacity

The load values shown in the load diagrams and tables above are tested and designed to allow operation at the maximum capacity based on the usable tray cross-section shown in the table below:



	50	75	100	150	225	300	450	600	750	900
	mm ²									
12..18	542	822	1102	1662	2502	5000				
25	1171	1776	2381	3591	5406	7083	10653	14223	17158	20608
50	2381	3611	4841	7301	10863	14523	21843	29163	35808	43008

Cable tray configurator and selector

For more precise and specific configurations involving electrical cables, and taking into account the maximum working capacity and the usable cross-sectional area of the trays, Pemsa offers Pemsa Pro, a product configurator that selects the most suitable tray for the user-defined cable configuration. For access and more information, scan this QR code.

