



HP PLUS 3R BOPLAN HANDRAIL PLUS 3 RAILS SPECIFICATION SHEET

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Boplan reference: HP1120- ...



PRODUCT SPECIFICATIONS

APPLICATION

Protection Robust handrail system for the physical demarcation of pedestrian zones.

Impact performance at 90° (in JOULE)
POST: 3300 Joule (Eq. to 2,5 ton - 5,8 km/h)
RAIL: 5500 Joule (Eq. to 2,5 ton - 7,5 km/h)

MATERIAL

Posts and rails Polyolefin - UV resistant - Fire class E⁺ - Non conductive - Impervious to most chemicals**
Caps SEBS rubber

STANDARD COLORS

End post Black
Mid post Black
Handrails Yellow
Black/Photolum; Black/Red; Black/yellow;
Yellow/black; Yellow/Photolum

BASEPLATES

	Steel	Zinc Coated Steel	Stainless steel
Material	Steel 37	Steel 37	SS 304
Coating	Lacquered	Lacquered + electro plating	No lacquer / No coating
Color	High gloss black	Matt black	Natural color

*Classification according to EN 13501-1:2007 +A1:2009 - Fire classification of construction products and building elements.
**Ask your local sales office for resistance to specific chemicals.

FIXATIONS

		ZC (Zinc coated)	SS (Stainless steel)
STANDARD	Wedge anchor	 M12 x 120mm	M12 x 120mm
	Wedge anchor Countersunk	 M12 x 120mm	M12 x 120mm
	Anchor rod (Chemical)	 M12 x 120mm + Chemical resin	M12 x 120mm + Chemical resin
ALTERNATIVES	Concrete screw	 Ø12mm x 100mm	Ø10mm x 100mm
	Asphalt anchor	 Bolt M10 x 40mm + Screw Ø16mm	Not available
	Spit anchor	 Bolt M12 x 100mm + Plug Ø20mm	Not available



FEATURES AND FUNCTIONALITY

SIZE	
Height end / mid posts	1150 mm
Profile section handrail	50 mm x 70 mm (6 mm wall thickness)
Profile section posts	112 mm x 112 mm (10 mm wall thickness)
Standard rail length	Standard length: 1500 mm (center - center dimension)
Baseplate	180 mm x 180 mm (10 mm thick)

REQUIREMENTS	
Concrete quality	minimum C25/30
Concrete floor plate thickness (mm)	minimum 150 mm
Concrete slab dimension around posts (mm)	400 (h) x 400 (w) x 300 (d)
Operational temperature	-10°C up to +40°C
Water and humidity	Steel (standard): dry indoor use only. Zinc coated: outdoor use in most environments. Stainless steel: outdoor use or frequent exposure to water and humidity.

COMPLIANCE

The HP PLUS handrail complies with safety standard EN14122-3 chapter 7 and 8 related to the strength of the rails and posts. Tested and approved by **TUV Nord**.

IMPACT LABEL FOR SAFETY BARRIERS

BOPLAN HP PLUS 3R		
IMPACT RATING	45°	90°
E80 > 80 kJ		
E60 > 60 kJ		
E50 > 50 kJ		
E40 > 40 kJ		
E35 > 35 kJ		
E30 > 30 kJ		
E25 > 25 kJ		
E20 > 20 kJ		
E15 > 15 kJ		
E10 > 10 kJ	7,8 kJ	5,5 kJ
E5 > 5,0 kJ		
E2 > 2,5 kJ		

TEST CONDITIONS

TEMPERATURE: 20°C
IMPACT HEIGHT: 500 mm
TEST FLOOR: CONCRETE C25/30 - 160 mm
MANUFACTURER ANCHOR PULL OUT: 7,9 kN

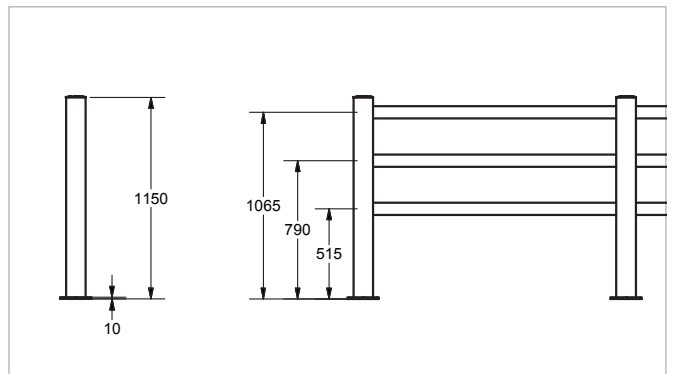
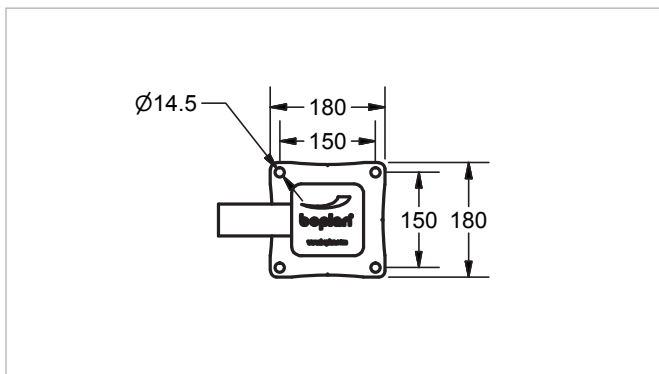
TEST VEHICLE

WEIGHT: 2300 KG
TYPE: COMMERCIAL FORK LIFT
SIZE (L x W x H): 1890 x 1020 x 1970 mm
CONTACT AREA: STEEL BUMPER WIDTH: 600 mm

BOPLAN TEST LAB









Muizelstraat 12
8560 Moorsele
Belgium

SUCCESS CRITERIA VEHICLE STOPPED - ASI (ACCELERATION SEVERITY INDEX) < 0.5





REFERENCE LIST - HP PLUS 3 RAILS

POSTS				POSTS			
	BLACK	MULTI COLOR 			BLACK	MULTI COLOR 	
End post - 3R End post - 3R - SS End post - 3R - ZC End post - 3R - CH End post - 3R - CH - SS End post - 3R - CH - ZC	HP1120-0001-EPBL HP1120-0001-EPBLS HP1120-0001-EPBLZ HP1120-0001-EPBLC HP1120-0001-EPBLCSS HP1120-0001-EPBLCZ	HP1120-0001-EPMC HP1120-0001-EPMCS HP1120-0001-EPMCZ - - -		Blank post - 3R Blank post - 3R - SS Blank post - 3R - ZC Blank post - 3R - CH Blank post - 3R - CH - SS Blank post - 3R - CH - ZC	HP1120-0001-BPBL HP1120-0001-BPBLS HP1120-0001-BPBLZ HP1120-0001-BPBLC HP1120-0001-BPBLCSS HP1120-0001-BPBLZC	HP1120-0001-BPMC HP1120-0001-BPMCS HP1120-0001-BPMCZ - - -	
Mid post - 3R Mid post - 3R - SS Mid post - 3R - ZC Mid post - 3R - CH Mid post - 3R - CH - SS Mid post - 3R - CH - ZC	HP1120-0001-MPBL HP1120-0001-MPBLS HP1120-0001-MPBLZ HP1120-0001-MPBLC HP1120-0001-MPBLCSS HP1120-0001-MPBLZC	HP1120-0001-MPMC HP1120-0001-MPMCS HP1120-0001-MPMCZ - - -		Corner post 90° - 3R Corner post 90° - 3R - SS Corner post 90° - 3R - ZC Corner post 90° - 3R - CH Corner post 90° - 3R - CH - SS Corner post 90° - 3R - CH - ZC	HP1120-0001-C90BL HP1120-0001-C90BLS HP1120-0001-C90BLZ HP1120-0001-C90BLC HP1120-0001-C90BLCSS HP1120-0001-C90BLZC	HP1120-0001-C90MC HP1120-0001-C90MCS HP1120-0001-C90MCZ - - -	
T - post - 3R T - post - 3R - SS T - post - 3R - ZC T - post - 3R - CH T - post - 3R - CH - SS T - post - 3R - CH - ZC	HP1120-0001-TPBL HP1120-0001-TPBLS HP1120-0001-TPBLZ HP1120-0001-TPBLC HP1120-0001-TPBLCSS HP1120-0001-TPBLZC	HP1120-0001-TPMC HP1120-0001-TPMCS HP1120-0001-TPMCZ - - -		Corner post 135° - 3R Corner post 135° - 3R - SS Corner post 135° - 3R - ZC Corner post 135° - 3R - CH Corner post 135° - 3R - CH - SS Corner post 135° - 3R - CH - ZC	HP1120-0001-C45BL HP1120-0001-C45BLS HP1120-0001-C45BLZ HP1120-0001-C45BLC HP1120-0001-C45BLCSS HP1120-0001-C45BLZC	HP1120-0001-C45MC HP1120-0001-C45MCS HP1120-0001-C45MCZ - - -	

RAIL SETS (3R)						
center - center length	BLACK / PHOTOLUM	BLACK / RED	BLACK / YELLOW	YELLOW / BLACK	YELLOW	YELLOW / PHOTOLUM
500 mm	HP1120-0500-0001BP	HP1120-0500-0001BR	HP1120-0500-0001BY	HP1120-0500-0001YB	HP1120-0500-0001YE	HP1120-0500-0001YP
750 mm	HP1120-0750-0001BP	HP1120-0750-0001BR	HP1120-0750-0001BY	HP1120-0750-0001YB	HP1120-0750-0001YE	HP1120-0750-0001YP
1000 mm	HP1120-1000-0001BP	HP1120-1000-0001BR	HP1120-1000-0001BY	HP1120-1000-0001YB	HP1120-1000-0001YE	HP1120-1000-0001YP
1250 mm	HP1120-1250-0001BP	HP1120-1250-0001BR	HP1120-1250-0001BY	HP1120-1250-0001YB	HP1120-1250-0001YE	HP1120-1250-0001YP
1500 mm	HP1120-1500-0001BP	HP1120-1500-0001BR	HP1120-1500-0001BY	HP1120-1500-0001YB	HP1120-1500-0001YE	HP1120-1500-0001YP
1750 mm	HP1120-1750-0001BP	HP1120-1750-0001BR	HP1120-1750-0001BY	HP1120-1750-0001YB	HP1120-1750-0001YE	HP1120-1750-0001YP
2000 mm	HP1120-2000-0001BP	HP1120-2000-0001BR	HP1120-2000-0001BY	HP1120-2000-0001YB	HP1120-2000-0001YE	HP1120-2000-0001YP
250-2000 mm	HP1121-2000-0001BP	HP1121-2000-0001BR	HP1121-2000-0001BY	HP1121-2000-0001YB	HP1121-2000-0001YE	HP1121-2000-0001YP
CORNER RAIL SETS (3R)						
Corner rail 90°/135° 1500 mm	HP1120-1500-C90BP	HP1120-1500-C90BR	HP1120-1500-C90BY	HP1120-1500-C90YB	HP1120-1500-C90YE	HP1120-1500-C90YP
Corner rail 90°/135° 250 - 2000 mm	HP1121-2000-C45BP	HP1121-2000-C45BR	HP1121-2000-C45BY	HP1121-2000-C45YB	HP1121-2000-C45YE	HP1121-2000-C45YP

