

HP PLUS 3R HANDRAILS

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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°	POST: 3300 Joule (Eq. to 2,5 ton - 3.6 mph)		
	RAIL: 5500 Joule (Eq. to 2,5 ton - 4.6 mph)		
MATERIAL			
Posts and rails	Extrilene® - UV resistant - Fire class E* - Non conductive - Impervious to most chemicals**		
Caps	Sustainable elastomer		
STANDARD COLOURS			
End post / Mid post	Standard: Yellow RAL 1003 Alternative: Black RAL 9005		
Handrails	Standard: Yellow RAL 1003 Alternative: Black/Photolum; Black/Red; Black/Yellow; Yellow/black; Yellow/Photolum		
BASEPLATES			
	Steel	Zinc Coated Steel	Stainless steel
Material	Steel 37	Steel 37	Stainless steel 304
Coating	Lacquered	Electroplated + Laquered	No lacquer / No coating
Colour	High gloss black	Mat black	Natural colour

*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		1/2 in x 4 1/2 in	Not available
	Wedge anchor		M12 x 120 mm	M12 x 120 mm
ALTERNATIVES	Concrete screw		Ø12mm x 100mm	Not available
	Anchor rod (Chemical)		M12 x 120 mm + Chemical resin	M12 x 120 mm + Chemical resin
	Asphalt anchor		Bolt M10 x 40 mm + Screw Ø16 mm	Not available
	Spit anchor		Bolt M12 x 100 mm + Plug Ø20 mm	Not available



FEATURES AND FUNCTIONALITY - HP PLUS 3R

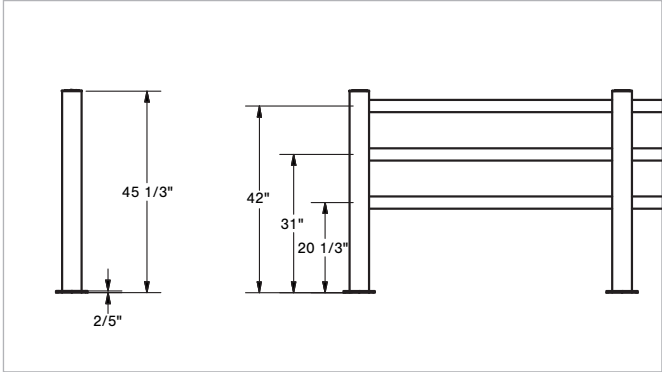
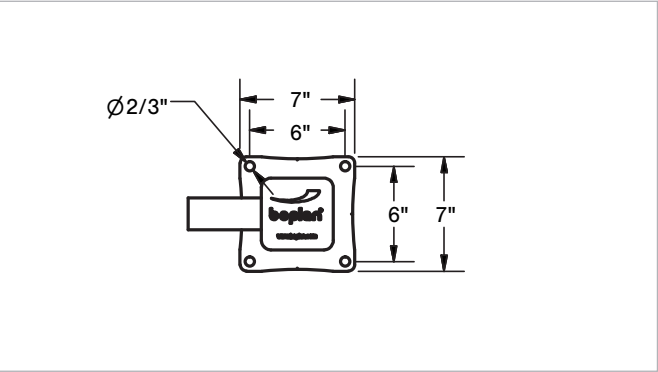
SIZE	
Height end / mid posts	45 1/3 in
Profile section handrail	2 x 2 3/4 in (1/4 in wall thickness)
Profile section posts	4 2/5 x 4 2/5 in (2/5 in wall thickness)
Standard rail length	Standard length: 60 in (center - center dimension)
Baseplate	7 x 7 in (2/5 in thick)

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	
E5	< 5,0 kJ	
E2	< 2,5 kJ	
	7,8 kJ	5,5 kJ
TEST CONDITIONS TEMPERATURE: 20°C / 68°F IMPACT HEIGHT: 500 mm / 20 inch IMPACT ANGLE: 90° TEST FLOOR: CONCRETE SLAB C25/30 - 160 mm / 6 inch MANUFACTURER ANCHOR PULL OUT: 7,9 kN		
TEST VEHICLE WEIGHT: 2300 KG / 5070.63 lbs TYPE: COMMERCIAL FORK LIFT SIZE (L x W x h): 1890x1020x1970 mm / 74x40x78 inch CONTACT AREA: STEEL BUMPER WIDTH: 600 mm / 24 inch		
BOPLAN TEST CENTRE Muizelstraat 12 8560 Moorsele Belgium Approved by: TÜV NORD Systems		
SUCCESS CRITERIA VEHICLE STOPPED - ASI (ACCELERATION SEVERITY INDEX) <0.5		
IL-HP112-20230710		

REQUIREMENTS	
Concrete quality	minimum 4000 PSI (C25/30)
Concrete floor plate thickness	minimum 6 in
Concrete slab dimension around posts (in)	15 3/4 (h) x 15 3/4 (w) x 11 4/5 (d)
Operational temperature	14°F up to 104°F
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 TÜV Nord .

 CERTIFICATE FOR DETERMINING THE PRODUCT TYPE 07/203/VKBÜ/Z/8121246350/23/KSP/1(00) According to the certification program GTH-22-KSP-VA-320 of TÜV NORD Systems GmbH & Co. KG for Plastic Products, this certificate applies to the product: Handrail HP Plus 3R/3R Handrail HD Light / Mezza placed on the market under the name or brand: Handrail HP Plus 3R/3R Handrail HD Light / Mezza and produced in the manufacturing plant(s): Boplan BV Muizelstraat 12 8560 Moorsele (Moorsele), Belgium This certificate attests that all test criteria for the determination of the product characteristics and for the determination of the product type, described in the technical specification DIN EN ISO 14122-3, especially Chapter 8.2 Please note: Inspection according to the EU Machinery Directive 2006/42/EC is not part of this contract. and submitted in the test report: 12304222026 / 1/12146350-791 have been met and that the manufacturer is effectively applying a quality management system with respect to the manufacture of mechanical plastic products. The manufacturer is responsible for the usability of the the products manufactured and marked by him according to the technical specification. This certificate was first issued 05.05.2023 and will remain valid until 03.2026 as long as neither the specifications in the mentioned technical specification, the plastic product nor the supplier's supply and manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the certification body. Hamburg, 05.05.2023 Valid until 03.2026 TÜV NORD Systems GmbH & Co. KG Gütersloher Str. 11 42699 Solingen Germany www.tuv-nord.com To verify the validity of this digital signed document, the signature of the TÜV NORD CERTIF is required. Digitally signed by Biel Andreas A. Biel Certification Body for Plastic Products of TÜV NORD Systems GmbH
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REFERENCE LIST - HP PLUS 3R

POSTS				POSTS			
	BLACK	MULTI Colour 			BLACK	MULTI Colour 	
End post - 3R End post - 3R - ZC End post - 3R - SS End post - 3R - CH End post - 3R - CH - ZC End post - 3R - CH - SS	HP1120-0001-EPBL HP1120-0001-EPBLZ HP1120-0001-EPBLS HP1120-0001-EPBLC HP1120-0001-EPBLCZ HP1120-0001-EPBLCSS	HP1120-0001-EPMC HP1120-0001-EPMCZ HP1120-0001-EPMCS - - -		Blank post - 3R Blank post - 3R - ZC Blank post - 3R - SS Blank post - 3R - CH Blank post - 3R - CH - ZC Blank post - 3R - CH - SS	HP1120-0001-BPBL HP1120-0001-BPBLZ HP1120-0001-BPBLS HP1120-0001-BPBLC HP1120-0001-BPBLCZ HP1120-0001-BPBLCSS	HP1120-0001-BPMC HP1120-0001-BPMCZ HP1120-0001-BPMCS - - -	
Mid post - 3R Mid post - 3R - ZC Mid post - 3R - SS Mid post - 3R - CH Mid post - 3R - CH - ZC Mid post - 3R - CH - SS	HP1120-0001-MPBL HP1120-0001-MPBLZ HP1120-0001-MPBLS HP1120-0001-MPBLC HP1120-0001-MPBLCZ HP1120-0001-MPBLCSS	HP1120-0001-MPMC HP1120-0001-MPMCZ HP1120-0001-MPMCS - - -		Corner post 90° - 3R Corner post 90° - 3R - ZC Corner post 90° - 3R - SS Corner post 90° - 3R - CH Corner post 90° - 3R - CH - ZC Corner post 90° - 3R - CH - SS	HP1120-0001-C90BL HP1120-0001-C90BLZ HP1120-0001-C90BLS HP1120-0001-C90BLC HP1120-0001-C90BLCZ HP1120-0001-C90BLCSS	HP1120-0001-C90MC HP1120-0001-C90MCZ HP1120-0001-C90MCS - - -	
T - post - 3R T - post - 3R - ZC T - post - 3R - SS T - post - 3R - CH T - post - 3R - CH - ZC T - post - 3R - CH - SS	HP1120-0001-TPBL HP1120-0001-TPBLZ HP1120-0001-TPBLS HP1120-0001-TPBLC HP1120-0001-TPBLCZ HP1120-0001-TPBLCSS	HP1120-0001-TPMC HP1120-0001-TPMCZ HP1120-0001-TPMCS - - -		Corner post 135° - 3R Corner post 135° - 3R - ZC Corner post 135° - 3R - SS Corner post 135° - 3R - CH Corner post 135° - 3R - CH - ZC Corner post 135° - 3R - CH - SS	HP1120-0001-C45BL HP1120-0001-C45BLZ HP1120-0001-C45BLS HP1120-0001-C45BLC HP1120-0001-C45BLCZ HP1120-0001-C45BLCSS	HP1120-0001-C45MC HP1120-0001-C45MCZ HP1120-0001-C45MCS - - -	

RAIL SETS (3R)						
center - center length	BLACK / PHOTOLUM	BLACK / RED	BLACK / YELLOW	YELLOW / BLACK	YELLOW	YELLOW / PHOTOLUM
24 in	HP1120-0610-0001BP	HP1120-0610-0001BR	HP1120-0610-0001BY	HP1120-0610-0001YB	HP1120-0610-0001YE	HP1120-0610-0001YP
36 in	HP1120-0915-0001BP	HP1120-0915-0001BR	HP1120-0915-0001BY	HP1120-0915-0001YB	HP1120-0915-0001YE	HP1120-0915-0001YP
48 in	HP1120-1220-0001BP	HP1120-1220-0001BR	HP1120-1220-0001BY	HP1120-1220-0001YB	HP1120-1220-0001YE	HP1120-1220-0001YP
60 in	HP1120-1525-0001BP	HP1120-1525-0001BR	HP1120-1525-0001BY	HP1120-1525-0001YB	HP1120-1525-0001YE	HP1120-1525-0001YP
72 in	HP1120-1828-0001BP	HP1120-1828-0001BR	HP1120-1828-0001BY	HP1120-1828-0001YB	HP1120-1828-0001YE	HP1120-1828-0001YP
78 in	HP1120-1980-0001BP	HP1120-1980-0001BR	HP1120-1980-0001BY	HP1120-1980-0001YB	HP1120-1980-0001YE	HP1120-1980-0001YP
10 - 78 in	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°: 60 in	HP1120-1525-C90BP	HP1120-1525-C90BR	HP1120-1525-C90BY	HP1120-1525-C90YB	HP1120-1525-C90YE	HP1120-1525-C90YP
Corner rail 90°/135°: 10 - 78 in	HP1121-2000-C45BP	HP1121-2000-C45BR	HP1121-2000-C45BY	HP1121-2000-C45YB	HP1121-2000-C45YE	HP1121-2000-C45YP



