

FLIP 120 BOPLAN SPECIFICATION SHEET

Revision: 24 May 2022 5:02 PM
Boplan reference: PL1210 ...



PRODUCT SPECIFICATIONS

APPLICATION

Environment	<ul style="list-style-type: none"> Ground level protection Wall protection (refrigerator walls, decorative walls, sandwich panels) Wheel guide for pallet trucks or trolleys in busy traffic lanes Protection of machines and infrastructure Below a Boplan traffic barrier system Indoor and outdoor use Food Industry
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MATERIAL

Plinth	Novilene® - UV resistant - Fire class E* - Non conductive - Impervious to most chemicals**
Endcap	SEBS rubber Black

STANDARD COLORS

Plinth	Yellow - Black / Black - Yellow
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*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	Concrete screw		Ø12mm x 100mm	Not available
	Anchor rod (Chemical)		M12 x 120mm + Chemical resin	M12 x 120mm + Chemical resin
ALTERNATIVES	Wedge Anchor		M12 x 120mm	Not available
	Asphalt anchor		Bolt M10 x 40mm + Screw Ø16mm	Not available



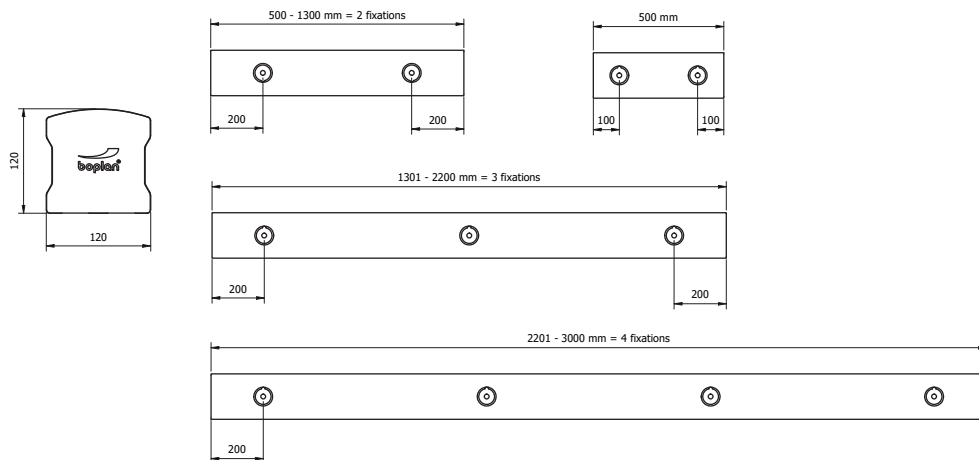
FEATURES AND FUNCTIONALITY FLIP 120

IMPACT LABEL FOR SAFETY BARRIERS		
BOPLAN FLIP 120		
IMPACT RATING	45°	90° <small>PAS 13:2017 compliant</small>
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	4.2 kJ
E2	< 2,5 kJ	3 kJ
DEFLECTION <small>At maximum impact energy</small>	 $\alpha = NA$ D = NA	$\alpha = 54^\circ$ D = 99 mm
TEST CONDITIONS <small>TEMPERATURE: 20°C IMPACT ANGLE: 90° - IMPACT HEIGHT: 65 mm STANDARD PRODUCT LENGTH: 2000 mm TEST FLOOR: CONCRETE C25/30 - 160 mm MANUFACTURER ANCHOR PULL OUT: 7.9kN</small>	TEST VEHICLE <small>WEIGHT: 3762 KG TYPE: BOPLAN IMPACT TEST VEHICLE SIZE (L x W x h): 3100 x 1100 x 1150 mm CONTACT AREA: STEEL BUMPER WIDTH: 1000 mm</small>	BOPLAN TEST LAB <small>Muizelstraat 12 8560 Moorsele Belgium</small>
SUCCESS CRITERIA VEHICLE STOPPED - ASI (ACCELERATION SEVERITY INDEX) <0.5		

SIZE	
Height	120 mm
Profile section	120 mm x 120 mm (10 mm thick)
Standard rail length	1000 mm - 2000 mm - 3000 mm (other sizes: 500 - 2999 mm)

REQUIREMENTS	
Concrete quality	minimum C25/30
Concrete floor plate thickness	minimum 150 mm
Operational temperature	+5°C up to +40°
Water and humidity	Zinc coated fixations: indoor and outdoor use in most environments

	REFERENCE LIST FLIP 120	
	YELLOW/black	BLACK/Yellow
500mm (2fix)	PL1210-0500-0001YB	PL1210-0500-0001BY
1000mm (2fix)	PL1210-1000-0001YB	PL1210-1000-0001BY
2000mm (3fix)	PL1210-2000-0001YB	PL1210-2000-0001BY
3000mm (4fix)	PL1210-3000-0001YB	PL1210-3000-0001BY
501-1300mm (2fix)	PL1211-1300-0001YB	PL1211-1300-0001BY
1301-2200mm (3fix)	PL1211-2200-0001YB	PL1211-2200-0001BY
2201-2999mm (4fix)	PL1211-2999-0001YB	PL1211-2999-0001BY



FLIP 180 BOPLAN SPECIFICATION SHEET

Revision: 24 May 2022 5:07 PM
Boplan reference: PL1810 ...



PRODUCT SPECIFICATIONS

APPLICATION

Environment	<ul style="list-style-type: none"> Ground level protection Wall protection (refrigerator walls, decorative walls, sandwich panels) Wheel guide for pallet trucks or trolleys in busy traffic lanes Protection of machines and infrastructure Below a Boplan traffic barrier system Indoor and outdoor use Food Industry
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MATERIAL

Plinth	Novilene® - UV resistant - Fire class E [*] - Non conductive - Impervious to most chemicals ^{**}
Endcap	SEBS rubber Black

STANDARD COLORS

Plinth	Yellow - Black / Black - Yellow
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^{*}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	Concrete screw		Ø17mm x 135mm	Not available
	Anchor rod (Chemical)		M16 x 120mm + Chemical resin	M16 x 120mm + Chemical resin
ALTERNATIVES	Wedge Anchor		M16 x 140mm	Not available
	Asphalt anchor		Bolt M16 x 100mm + Screw Ø22mm	Not available



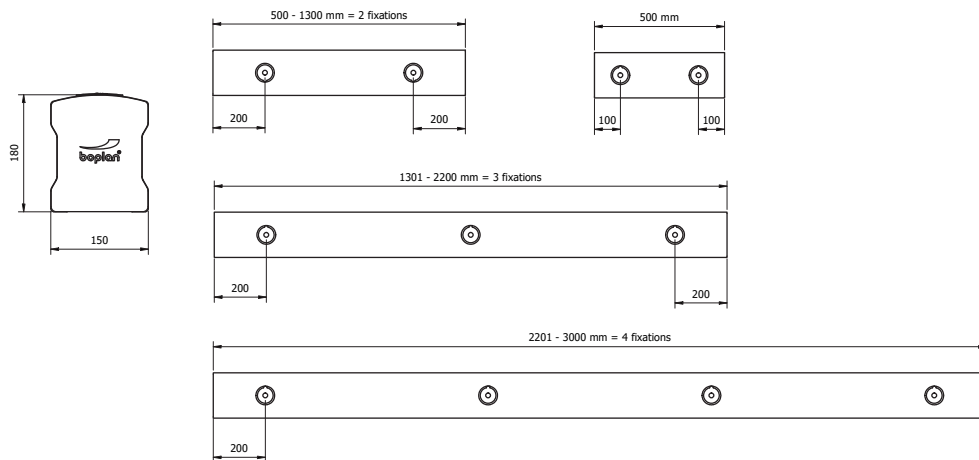
FEATURES AND FUNCTIONALITY FLIP 180

IMPACT LABEL FOR SAFETY BARRIERS		
BOPLAN FLIP 180		
IMPACT RATING	45°	90° <small>PAS 13:2017 compliant</small>
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	7kJ	5kJ
E2 < 2,5 kJ		
DEFLECTION <small>At maximum impact energy</small>	 $\alpha = \text{NA}$ D = NA	$\alpha = 54^\circ$ D = 99 mm
TEST CONDITIONS <small>TEMPERATURE: 20°C IMPACT ANGLE: 90° - IMPACT HEIGHT: 65 mm STANDARD PRODUCT LENGTH: 2000 mm TEST FLOOR: CONCRETE C25/30 - 160 mm MANUFACTURER ANCHOR PULL OUT: 7.9 kN</small>	TEST VEHICLE <small>WEIGHT: 3762 KG TYPE: BOPLAN IMPACT TEST VEHICLE SIZE (L x W x H): 3100 x 1100 x 1150 mm CONTACT AREA: STEEL BUMPER WIDTH: 1000 mm</small>	BOPLAN TEST LAB <small>Muizelstraat 12 8560 Moorsele Belgium</small>
SUCCESS CRITERIA - VEHICLE STOPPED - ASI (ACCELERATION SEVERITY INDEX) < 0.5		

SIZE	
Height	180 mm
Profile section	180 mm x 150 mm (10 thick)
Standard rail length	1000 mm - 2000 mm - 3000 mm (other sizes: 500 - 2999 mm)

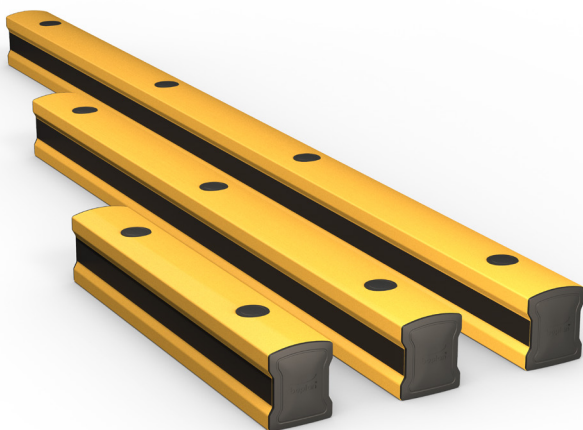
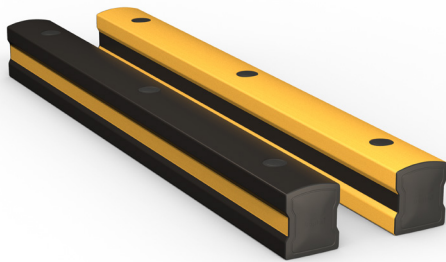
REQUIREMENTS	
Concrete quality	minimum C25/30
Concrete floor plate thickness	minimum 150 mm
Operational temperature	+5°C up to +40°
Water and humidity	Zinc coated fixations: indoor and outdoor use in most environments

	REFERENCE LIST FLIP 180	
	YELLOW/black	BLACK/Yellow
500mm (2fix)	PL1810-0500-0001YB	PL1810-0500-0001BY
1000mm (2fix)	PL1810-1000-0001YB	PL1810-1000-0001BY
2000mm (3fix)	PL1810-2000-0001YB	PL1810-2000-0001BY
3000mm (4fix)	PL1810-3000-0001YB	PL1810-3000-0001BY
501-1300mm (2fix)	PL1811-1300-0001YB	PL1811-1300-0001BY
1301-2200mm (3fix)	PL1811-2200-0001YB	PL1811-2200-0001BY
2201-2999mm (4fix)	PL1811-2999-0001YB	PL1811-2999-0001BY



FLIP 200 BOPLAN SPECIFICATION SHEET

Revision: 10 May 2022 2:31 PM
Boplan reference: PL2010 ...



PRODUCT SPECIFICATIONS

APPLICATION

Environment	Ground level protection - Wall protection (refrigerator walls, decorative walls, sandwich panels) - Wheel guide for pallet trucks or trolleys in busy traffic lanes - Protection of machines and infrastructure - Below a Boplan traffic barrier system - Indoor and outdoor use - Food Industry
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MATERIAL

Plinth	Novilene® - UV resistant - Fire class E* - Non conductive - Impervious to most chemicals**
Endcap	SEBS rubber Black

STANDARD COLORS

Plinth	Yellow - Black / Black - Yellow
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*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	Concrete screw	 Ø17mm x 135mm	Not available
	Anchor rod (Chemical)	 M16 x 120mm + Chemical resin	M16 x 120mm + Chemical resin
ALTERNATIVES	Wedge anchor	 M16 x 140mm	Not available
	Asphalt anchor	 Bolt M16 x 100mm + Screw Ø22mm	Not available



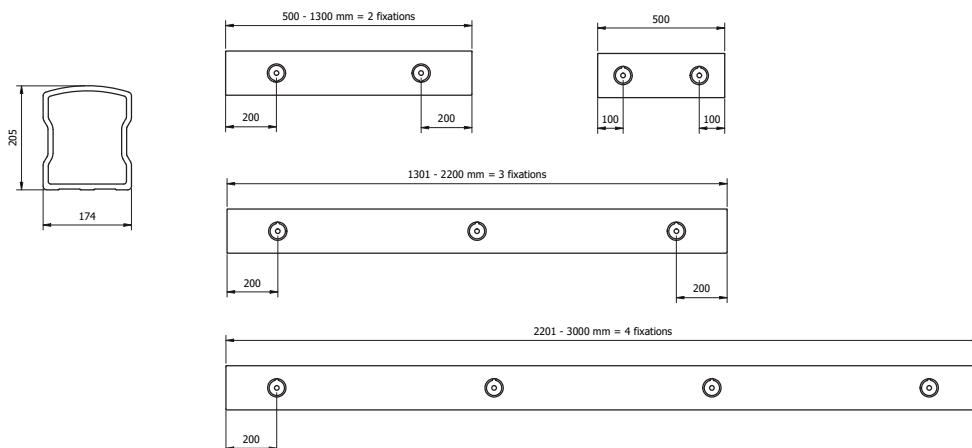
FEATURES AND FUNCTIONALITY FLIP 200

BOPLAN FLIP 200		
IMPACT RATING	45°	90° <small>PAS 13:2017 compliant</small>
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	11kJ	8kJ
E5 > 5,0 kJ		
E2 > 2,5 kJ		
DEFLECTION <small>At maximum impact energy</small>	 $\alpha = NA$ $D = NA$	$\alpha = 47^\circ$ $D = 200\text{ mm}$
TEST CONDITIONS <small>TEMPERATURE: 20°C IMPACT HEIGHT: 65 mm IMPACT ANGLE: 90° TEST FLOOR: CONCRETE C25/30 - 160 mm MANUFACTURER ANCHOR PULL OUT: 7,9 kN</small>	 TEST VEHICLE <small>WEIGHT: 3762 KG TYPE: BOPLAN IMPACT TEST VEHICLE SIZE (L x W x h): 3100 x 1100 x 1150 mm CONTACT AREA: STEEL BUMPER WIDTH: 1000 mm</small>	 BOPLAN TEST LAB <small>Muizelstraat 12 8560 Moorsele Belgium</small>
SUCCESS CRITERIA VEHICLE STOPPED - ASI (ACCELERATION SEVERITY INDEX) <0.5		

SIZE	
Height	205 mm
Profile section	205 mm x 174 mm (10 thick)
Standard rail length	1000 mm - 2000 mm - 3000 mm (other sizes: 500 - 2999 mm)

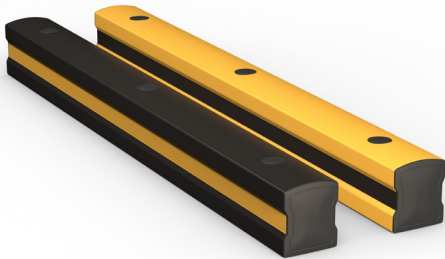
REQUIREMENTS	
Concrete quality	minimum C25/30
Concrete floor plate thickness	minimum 150 mm
Operational temperature	+5°C up to +40°
Water and humidity	Zinc coated fixations: indoor and outdoor use in most environments

	REFERENCE LIST FLIP 200	
	YELLOW/Black	BLACK/Yellow
500mm (2fix)	PL2010-0500-0001YB	PL2010-0500-0001BY
1000mm (2fix)	PL2010-1000-0001YB	PL2010-1000-0001BY
2000mm (3fix)	PL2010-2000-0001YB	PL2010-2000-0001BY
3000mm (4fix)	PL2010-3000-0001YB	PL2010-3000-0001BY
501-1300mm (2fix)	PL2011-1300-0001YB	PL2011-1300-0001BY
1301-2200mm (3fix)	PL2011-2200-0001YB	PL2011-2200-0001BY
2201-2999mm (4fix)	PL2011-2999-0001YB	PL2011-2999-0001BY



FLIP 200 FORCE BOPLAN SPECIFICATION SHEET

Revision: 31 May 2022 10:04 AM
Boplan reference: PL2020 ...



PRODUCT SPECIFICATIONS

APPLICATION

Environment	Ground level protection - Wall protection (refrigerator walls, decorative walls, sandwich panels) - Wheel guide for pallet trucks or trolleys in busy traffic lanes - Protection of machines and infrastructure - Below a Boplan traffic barrier system - Indoor and outdoor use - Food Industry
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MATERIAL

Plinth	Novilene® - UV resistant - Fire class E* - Non conductive - Impervious to most chemicals**
Endcap	SEBS rubber Black

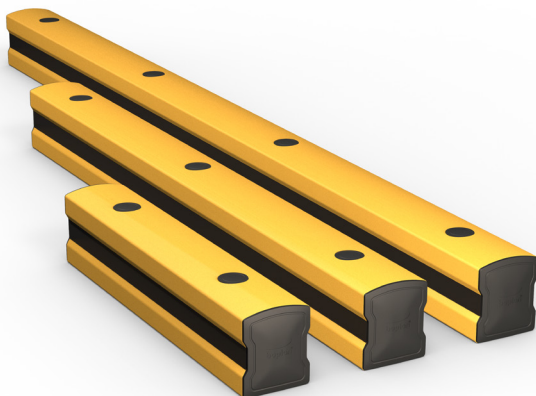
STANDARD COLORS

Plinth	Yellow - Black / Black - Yellow
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*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	Concrete screw	 Ø17mm x 135mm	Not available
	Anchor rod (Chemical)	 M16 x 120mm + Chemical resin	M16 x 120mm + Chemical resin
ALTERNATIVES	Wedge Anchor	 M16 x 140mm	Not available
	Asphalt anchor	 Bolt M16 x 100mm + Screw Ø22mm	Not available



FEATURES AND FUNCTIONALITY FLIP 200 Force

IMPACT LABEL FOR SAFETY BARRIERS		
BOPLAN FLIP 200 FORCE		
IMPACT RATING	45°	90° PAS 13:2017 compliant
E80 < 80 kJ		
E60 < 60 kJ		
E50 < 50 kJ		
E40 < 40 kJ		
E35 < 35 kJ		
E30 < 30 kJ		
E25 < 25 kJ		
E20 < 20 kJ	22 kJ	
E15 < 15 kJ		16 kJ
E10 < 10 kJ		
E5 < 5,0 kJ		
E2 < 2,5 kJ		
DEFLECTION At maximum impact energy	$\alpha = NA$ $D = NA$	$\alpha = 66^\circ$ $D = 242 mm$
TEST CONDITIONS TEMPERATURE: 20°C IMPACT HEIGHT: 65 mm IMPACT ANGLE: 90° TEST FLOOR: CONCRETE C25/30 - 160 mm MANUFACTURER ANCHOR PULL OUT: 7,9 kN	TEST VEHICLE WEIGHT: 3762 KG TYPE: BOPLAN IMPACT TEST VEHICLE SIZE (L x W x h): 3100 x 1100 x 1150 mm CONTACT AREA: STEEL BUMPER WIDTH: 1000 mm	BOPLAN TEST LAB Muizelstraat 12 8560 Moorsele Belgium
SUCCESS CRITERIA VEHICLE STOPPED - ASI (ACCELERATION SEVERITY INDEX) <0.5		

SIZE	
Height	205 mm
Profile section	205 mm x 174 mm (10 thick)
Standard rail length	1000 mm - 2000 mm - 3000 mm (other sizes: 500 - 2999 mm)

REQUIREMENTS	
Concrete quality	minimum C25/30
Concrete floor plate thickness	minimum 150 mm
Operational temperature	+5°C up to +40°
Water and humidity	Zinc coated fixations: indoor and outdoor use in most environments

REFERENCE LIST FLIP 200 Force		
	YELLOW/Black	BLACK/Yellow
500mm (2fix)	PL2020-0500-0001YB	PL2020-0500-0001BY
1000mm (2fix)	PL2020-1000-0001YB	PL2020-1000-0001BY
2000mm (3fix)	PL2020-2000-0001YB	PL2020-2000-0001BY
3000mm (4fix)	PL2020-3000-0001YB	PL2020-3000-0001BY
501-1300mm (2fix)	PL2021-1300-0001YB	PL2021-1300-0001BY
1301-2200mm (3fix)	PL2021-2200-0001YB	PL2021-2200-0001BY
2201-2999mm (4fix)	PL2021-2999-0001YB	PL2021-2999-0001BY

