



CLIENT: **SDE MOTORSPORT SRL**
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DP

FOR THE ATTENTION OF: Agnese Wisniewska

DC 15948

SAMPLING: done by the Applicant

TEST REPORTS: this document is based on Test Reports no.: 4114336/E and 4114825/E

SAMPLES: Boots for motorcycling use, in the following articles:
- "PHANTOM" (FORV310), black color (color code: 99), sizes 38-48;
- "PHANTOM" (FORV310), black/grey/red color (color code: 991510), sizes 42;
- "PHANTOM" (FORV310), black/grey/ fluo yellow color (color code: 991578), sizes 42;
- "PHANTOM FLOW" (FORV320), black/white color (color code: 9998), sizes 42;
- "PHANTOM FLOW" (FORV320), black color (color code: 99), sizes 38-48.

See the complete description on the next page.

REQUEST: Laboratory tests in accordance with EN 13634:2017 for the aim of the Certification (Regulation (EU) 2016/425).

OUTCOME:  **PASS**

Notes:

All results refer exclusively to the tested materials as received.

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Positive results of a test report do not imply that the tested product is "certified" or "approved" by RCT.

Comments and interpretations are of subjective nature and not part of the Test Report.

Test carried out by qualified partner lab ISO 17025.

* Test not accredited by Accredia

Conformity assessment criterion: the result is considered compliant until the value falls within or coincides with the specification limit.

Unless otherwise indicated, the test conditions correspond to the reference standard.

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DESCRIPTION:

article: "PHANTOM" (FORV310), black color (color code: 99); (base model)

fastening system: by means of a lateral external zipper and a polymeric strap with a buckle;

processing: ago;

outsole: black/white rubber, black marked "FORMA";

upper:

- **(1a)** black coated microfiber (SI0294) with grey geometric designs (GEOMETRIC PHAN) coupled with white reinforcement (IR0011) and black polymeric reinforcement (IR0009);

- **(2)** black suede leather (PE0008) coupled with white reinforcement (IR0011);

- **(3a)** black coated microfiber (SI0294) with grey geometric designs (GEOMETRIC PHAN) coupled with white reinforcement (IR0011);

front joint (4a): grey perforated polymeric material (CAMBR.PHANTOM) coupled with black fabric (SI0340), black foam (IR0059) and black fleece (IR0209);

rear joint (5a): black coated microfiber (SI0294) coupled with black foam (IR0059) and black fleece (IR0209);

collar (6): black coated microfiber (SI0342);

vamp/rear/quarter lining (7): red three-dimensional mesh coupled with grey foam (FO0187);

insole: blue rigid polymeric material (MF0369);

removable insock (perforated) (8): white foam coupled with red fleece, white marked "FORMA" (MF0363), in contact with the user;

gearshift lever protective insert: black polymeric patch;

slider: grey metallic insert.

The boot has stiff inserts in polymeric material stitched onto the upper, as follows:

- shin insert: black color with white logo;
- heel insert: black/red color with additional metallic shell;
- calf insert: black color;
- lateral (external/internal) insert: black color.

article: "PHANTOM" (FORV310), black/grey/red color (color code: 991510);

This article differs from the base model in the following features:

upper:

- **(1b)** black coated microfiber (SI0294) with red/grey geometric designs (GEOMETRIC PHAN) coupled with white reinforcement (IR0011) and black polymeric reinforcement (IR0009);

- **(2)** black suede leather (PE0008) coupled with white reinforcement (IR0011);

- **(3b)** black coated microfiber (SI0294) with red/grey geometric designs (GEOMETRIC PHAN) coupled with white reinforcement.

The boot has stiff inserts in polymeric material stitched onto the upper, as follows:

- shin insert: black color with red logo;
- heel insert: black/red color with additional metallic shell;
- calf insert: black color;
- lateral (external/internal) insert: black color.



article: "PHANTOM" (FORV310), black/grey/ fluo yellow color (color code: 991578);

This article differs from the base model in the following features:

upper:

- **(1c)** black coated microfiber (SI0294) with fluo yellow /grey geometric designs (GEOMETRIC PHAN1) coupled with white reinforcement (IR0011) and black polymeric reinforcement (IR0009);
- **(2)** black suede leather (PE0008) coupled with white reinforcement (IR0011);
- **(3c)** black coated microfiber (SI0294) with fluo yellow /grey geometric designs (GEOMETRIC PHAN1) coupled with white reinforcement (IR0011);

front joint (4b): grey perforated polymeric material (CAMBR.PHANTOM) coupled with fluo yellow fabric (SI0340), black foam (IR0059) and black fleece (IR0209);

rear joint (5b): grey coated microfiber (SI0294) coupled with black foam (IR0059) and black fleece (IR0209).

The boot has stiff inserts in polymeric material stitched onto the upper, as follows:

- shin insert: grey color with fluo yellow logo;
- heel insert: black/red color with additional metallic shell;
- calf insert: black color;
- lateral (external/internal) insert: black color.

article: "PHANTOM FLOW" (FORV320), black/white color (color code: 9998);

This article differs from the base model in the following features:

upper:

- **(9a)** black coated perforated microfiber (SI0294ECOST) with grey/white geometric designs (CAMUPHANTOM) coupled with white reinforcement (IR0011) and black polymeric reinforcement (IR0009);
- **(2)** black suede leather (PE0008) coupled with white reinforcement (IR0011);
- **(10a)** black coated microfiber (SI0294ECOST) with grey/white geometric designs (CAMUPHANTOM) coupled with white reinforcement (IR0011);

rear joint (11a): black coated perforated microfiber (SI0294) coupled with black foam (IR0059) and black fleece (IR0209).

The boot has stiff inserts in polymeric material stitched onto the upper, as follows:

- shin insert: black color with white logo;
- heel insert: white/red color with additional metallic shell;
- calf insert: black color;
- lateral (external/internal) insert: black color.

article: "PHANTOM FLOW" (FORV320), black color (color code: 99);

This article differs from the base model in the following features:

upper:

- **(9b)** black coated perforated microfiber (SI0294ECOST) with grey/white geometric designs (BRUSHPHANTOM) coupled with white reinforcement (IR0011) and black polymeric reinforcement (IR0009);
- **(2)** black suede leather (PE0008) coupled with white reinforcement (IR0011);
- **(10b)** black coated microfiber (SI0294ECOST) with grey/white geometric designs (BRUSHPHANTOM) coupled with white reinforcement (IR0011);

rear joint (11b): white coated perforated microfiber (SI0294) coupled with black foam (IR0059) and black fleece (IR0209).



The material combinations of the footwear for the impact abrasion and cut resistance tests are the following ones:

- A) 1 + 6 (area A and B); see comb. C
- B) 2 + 6 (area A and B);
- C) 3 + 6 (area A and B);
- D) 4 + 6 (area A);
- E) 5 + 6 (area A);
- F) 9 + 6 (area A and B); see comb. G
- G) 10 + 6 (area A and B);
- H) 11 + 6 (area A).

Groups of materials tested for Azo-dyes content:

- Z) 2;
- Y) 1a + 5a;
- X) 1b + 1c + 9a + 9b.



References	Tests	Measuring unit	Requirements	Results		
				38	42	48
EN 13634:2017	Protective footwear for motorcycle riders					
4.2	Design					
art. "PHANTOM"						
4.2.1 (Table 3)	Height of upper (Level 2) Measure "H2" - right - left Measure "H1" - right - left	mm	size/height 37-38 / ≥ 165 41-42 / ≥ 178 ≥ 45 / ≥ 192	271 271	294 294	303 303
		mm	37-38 / ≥ 115 41-42 / ≥ 123 ≥ 45 / ≥ 131	310 310	315 315	318 318
art. "PHANTOM FLOW"						
4.2.1 (Table 3)	Height of upper (Level 2) Measure "H2" - right - left Measure "H1" - right - left	mm	size/height 37-38 / ≥ 165 41-42 / ≥ 178 ≥ 45 / ≥ 192	270 270	286 286	302 302
		mm	37-38 / ≥ 115 41-42 / ≥ 123 ≥ 45 / ≥ 131	312 312	324 324	320 320
4.3	Whole footwear					
4.3.1 (EN ISO 20344:2011 p. 5.2)	Upper/outsole bond strength (if not stitched)	N/mm	$\geq 4,0$ (If sole tear $\geq 3,0$)	7,6	7,0	5,5
				(100% upper delamination)		
4.3.1 (EN ISO 20344:2011 p. 5.2)	Upper/outsole bond strength (if not stitched)	N/mm	$\geq 4,0$ (If sole tear $\geq 3,0$)	9,7	10,3	7,5
				(100% upper delamination)		
4.3.2 (ISO/TR 16178:2010*)	Innocuousness	-	Shall not adversely affect the health or the hygiene of the user	Pass		



References	Tests	Measuring unit	Requirements	Results																
				38	42	48														
ISO 17234-1:2020# leather	Azo colorants content:	mg/kg	absent (<30 mg/kg)		Group: Z*	Pass														
ISO 17234-2:2011# leather	Detection of the use of certain azo colorants, which may release: 4-aminoazobenzene	mg/kg	< 30		Group: Z	Pass														
* Under test conditions, 4-aminoazobenzene might break down into aniline and 1,4-Phenylenediamine. 1891 mg/kg of aniline were found in the present test sample.																				
ISO 14362-1:2017# textile	Azo colorants content:	mg/kg	absent (<30 mg/kg)		Group: Y-X	Pass														
ISO 17234-1:2020# leather ISO 14362-1:2017# textile	Azo colorants content:	<table><tr><th>Material</th><th>TR (Group)</th></tr><tr><td>CAMBR.PHANTOM grey amp</td><td>4014212.01/E (a)</td></tr><tr><td>SI0294 black</td><td>4014212.01/E (a)</td></tr><tr><td>FO0187 red</td><td>4014212.01/E (a)</td></tr><tr><td>MF0363</td><td>4013523/E (Y)</td></tr><tr><td>CAMBR.PHANTOM1 grey amp</td><td>4112737/E (a)</td></tr><tr><td>SI0294 7531 grey</td><td>4111804/E</td></tr></table>					Material	TR (Group)	CAMBR.PHANTOM grey amp	4014212.01/E (a)	SI0294 black	4014212.01/E (a)	FO0187 red	4014212.01/E (a)	MF0363	4013523/E (Y)	CAMBR.PHANTOM1 grey amp	4112737/E (a)	SI0294 7531 grey	4111804/E
Material	TR (Group)																			
CAMBR.PHANTOM grey amp	4014212.01/E (a)																			
SI0294 black	4014212.01/E (a)																			
FO0187 red	4014212.01/E (a)																			
MF0363	4013523/E (Y)																			
CAMBR.PHANTOM1 grey amp	4112737/E (a)																			
SI0294 7531 grey	4111804/E																			
4.4	Upper																			
4.4.1 (EN ISO 4045:2018)	pH value (leather)	-	≥ 3,2		Material: 2	4,30														
	differential figure (if pH < 4)	-	< 0,7			-														
4.2/a EN ISO 17075-2:2017 #	Chromium VI content (leather)	mg/kg	≤ 3,0		Material: 2	Pass														



References	Tests	Measuring unit	Requirements		Results			
					38	42	48	
4.4.4 Table 4 (EN 13595-2:2002)	Impact abrasion resistance		Level 1	Level 2	Combination: B C D E			
	- Zone A	s	≥ 1,5	≥ 2,5	> 30	12,4	21,8	16,4
	- Zone B	s	≥ 5	≥ 12	> 30	12,4	-	-
4.4.4 Table 4 (EN 13595-2:2002)	Impact abrasion resistance		Level 1	Level 2	Combination: G H			
	- Zone A	s	≥ 1,5	≥ 2,5	12,5		18,7	
	- Zone B	s	≥ 5	≥ 12	12,5		-	
4.4.5 Table 6 (EN 13595-4:2002)	Impact cut resistance		Level 1	Level 2	Combination: B C D E			
	- Zone A (2,0 m/s)	mm	≤ 25	≤ 25	-	-	0	7,6
	- Zone B (2,8 m/s)	mm	≤ 25	≤ 15	4,4	9,8	-	-
4.4.5 Table 6 (EN 13595-4:2002)	Impact cut resistance		Level 1	Level 2	Combination: G H			
	- Zone A (2,0 m/s)	mm	≤ 25	≤ 25	-		0	
	- Zone B (2,8 m/s)	mm	≤ 25	≤ 15	11,0		-	
4.5	Lining	mat.7 see TR 4111808/E (7) and 4014212.01/E (7a)						
4.5.2 (EN ISO 20345:2011 p. 5.5.1)	Tear strength				Material: 6			
	- Leather	N	≥ 30		-			
	- Coated fabric and textile	N	≥ 15		172			
4.5.3 (EN ISO 20344:2011 p. 6.12)	Abrasion resistance				Material: 6			
	- 25 600 cycles dry	-	No hole development on the wearing surface		Pass			
	- 12 800 cycles wet	-			Pass			
4.5.6 (EN ISO 11642:2012)*	Color fastness				Material: 6			
	- Discharge							
	a) Acetate		≥ 3		4/5			
	b) Cotton		≥ 3		4			
	c) Polyamide		≥ 3		4			
	d) Polyester		≥ 3		4/5			
	e) Polyacrylic		≥ 3		4/5			
	f) Wool		≥ 3		5			
		Grey Scale*						
		*: 5=good, 1=bad.						



References	Tests	Measuring unit	Requirements	Results		
				38	42	48
4.6	Outsole					
4.6.1 (EN ISO 20344:2011 p. 8.1.2)	Outsole thickness d_1	mm	$\geq 4,0$	11,3	11,3	11,3
	Cleated outsole - Cleat height d_2	mm	$\geq 2,5$	-	-	-
	- Cleats design	-	cleats within the shaded area of fig.4 shall be open to the side (45%L/forepart, 25%L/heel)	-	-	-
ISO 2781:2008 Amd 1:2010	Outsole density (method A)	g/cm ³	-	BLACK OUTSOLE		
				1,14		
ISO 2781:2008 Amd 1:2010	Outsole density (method A)	g/cm ³	-	WHITE OUTSOLE		
				1,21		
4.6.2 ISO 4649:2017 (method A)	Abrasion resistance			BLACK OUTSOLE		
	- material with density $> 0,9$ g/cm ³	mm ³	≤ 150	79	79	79
	- material with density $\leq 0,9$ g/cm ³	mm ³	≤ 250	-	-	-
4.6.2 ISO 4649:2017 (method A)	Abrasion resistance			WHITE OUTSOLE		
	- material with density $> 0,9$ g/cm ³	mm ³	≤ 150	144	144	144
	- material with density $\leq 0,9$ g/cm ³	mm ³	≤ 250	-	-	-
4.7 (Annex A)	Ergonomics		Pass	Pass		
4.8 (6.1)	Transverse rigidity of the whole footwear		Level 1 Level 2			
	- right	kN	$\geq 1,0$	2,5	2,6	2,1
	- left		$\geq 1,5$	2,3	2,5	2,3
4.9 (Table 7)*	Insole construction	-	Either an insole or insock shall be present in such a way that it cannot be removed without damaging the Footwear (see acceptable options as detailed in Table 7).	Pass		



References	Tests	Measuring unit	Requirements	Results		
				38	42	48
4.10	Insole and insock					
	Insole	see TR 4012105.01				
	Insock					
4.10.2.2 (EN ISO 20345:2011 p. 5.7.4.2) (EN ISO 20344:2011 p. 6.12)	Abrasion resistance - 25 600 cycles dry - 12 800 cycles wet	- -	No hole development on the wearing surface	Pass Pass		
-	Protective levels to be marked: - Height of upper - Abrasion resistance: - Impact cut resistance: - Transverse rigidity:	- - - -	1/2 1/2 1/2 1/2	art. "PHANTOM" 2 2 2 2		
-	Protective levels to be marked: - Height of upper - Abrasion resistance: - Impact cut resistance: - Transverse rigidity:	- - - -	1/2 1/2 1/2 1/2	art. "PHANTOM FLOW" 2 2 2 2		

- End of the Technical Report -