



Technical Report No.:

CW130 – 26 – TAC

Regulation:

UN Reg. No. 129.04

Manufacturer:

[REDACTED]

Type:

[REDACTED]

1/19

UN/ECE Technical Service No. E8/C and E27/J

**TECHNICAL REPORT
No. CW130 – 26 – TAC**

Test according to UN Regulation No. 129.04

**Uniform provisions concerning the approval of enhanced child restraint system
use on board of motor vehicles
(ECRS)**

UN Regulation No. 129.00 – date of entry into force: 2013-07-09

including all amendments up to and including

UN Regulation No. 129.04, supplement 3 – date of entry into force: 2026-01-11

Objectives: Document for issue of approval certificate

I. Technical data

0.1. Make (trade name of manufacturer):

[REDACTED]

[REDACTED] Type:

[REDACTED]

0.2.1. Commercial name:

n.a.



Technical Report No.:

CW130 – 26 – TAC

Regulation:

UN Reg. No. 129.04

Manufacturer:

Type:

2/19

0.2.2.	Variants:	n.a.
0.3.	Means of identification of type:	Letters and digits
0.4.	Category of vehicle:	n.a.
0.5.	Name and address of manufacturer:	[REDACTED] [REDACTED]
0.8.	Address of assembly plant:	See 0.5.
0.9.	Location of the approval mark:	Sticker pasted on the side of product
0.10.	ECRS	
0.10.1.	ECRS category:	Universal belted
0.10.2.	ECRS class:	Integral
0.10.3.	Size Range:	40-87cm
0.10.4.	Maximum occupant mass for Integral ECRS:	13kg
0.10.5.	ECRS orientation:	Rearward-facing
0.10.6.	Anti-rotation device:	n.a.
0.10.7.	Child Restraint Mode:	Y-shaped belt
0.10.8.	Locking-off device type:	n.a.
0.10.9.	Type of retractor:	n.a.
0.10.10.	Belt type:	adult safety-belt
0.10.11.	Other features:	Chair assembly
0.10.12.	Installation Methods:	Adult safety-belt
0.10.13.	Backrest positions:	Fixed
0.10.14.	Declaration on toxicity in accordance with par.6.3.1.1. of this regulation:	See Appendix 3 of information document
0.10.15.	Declaration on flammability in accordance with par.6.3.1.2. of this regulation:	See Appendix 3 of information document
0.10.16.	Instruction for use of ECRS in the vehicle:	See Appendix 2, Appendix 4 and Appendix 5 of information document

II. Test report

1. Test conditions

1.1.	Test sample:	ECRS of size range 40-87cm, type [REDACTED]. For type approval tests: Samples No. 1 to 12, and relative components; for production qualification tests: PQT 1 to 5.
------	--------------	---

Technical Report No.:

CW130 – 26 – TAC

Regulation:

UN Reg. No. 129.04

Manufacturer:

Type:

3/19

- 1.1.1 Technical data from the manufacturer: Testing laboratory does not bear any responsibility for possibly incorrect values of dimensions provided by the manufacturer and for test results found out based on these values.
- 1.2. Test procedures used: According to UN Regulation No. 129.04
- 1.3. Measuring and test equipment: Used equipment fulfill all requirements of the UN Regulation No. 129.04
- 1.4. Worst case evaluation: N/A, single case - no variant.
This paragraph is required by the Type Approval Authority.
- 1.5. Testing conditions: n.a.
- 1.6. Test track or site: Ego Testing and Certification Co., Ltd.
No. 28, Lufeng East Road, Lujia, Kunshan, Suzhou, Jiangsu, China

2. Test results

Following numbering is according to UN Regulation No. 129.04

4. Markings
- 4.1. ECRS is marked of manufacturer's name, initials or trade mark: fulfilled
- 4.2. ECRS is clear and indelible marked with year of production: fulfilled
- 4.3. Orientation, size range, maximum occupant mass, webbing path, and visibility of these marking: fulfilled
- 4.4. ECRS is permanently attached the warning label of "Airbag": fulfilled
- 4.5. ECRS is permanently attached the warning label of no forward-facing for child less than 15 months: n.a.
- 4.6. The webbing path markings shall be permanently and durably attached and visible: fulfilled
- 4.7. Marking for integral ECRS including ISOFIX connections attachments
- 4.7.1. for i-Size ECRS, the i-Size Logo shall permanently visible: n.a.



- 4.7.2. for Specific Vehicle ISOFIX ECRS, the ISO ISOFIX logo and user instruction label shall permanently visible: n.a.
- 4.7.3. If ECRS containing modules, approval mark shall be permanently attached on base: n.a.
- 4.7.4. If ECRS containing modules, module mark shall be permanently attached on the module: n.a.
- 4.8. Marking for non-integral ECRS
- 4.8.1. For i-Size booster seat ECRS, the i-Size booster seat user instruction label shall be permanently visible as prescribed in item 4.7.1.: n.a.
- 4.8.2. for Specific vehicle booster seat ECRS, the Specific vehicle booster seat user instruction label shall permanently visible: n.a.
- 4.8.3. for Universal booster cushion ECRS, the Universal booster cushion ECRS user instruction label shall permanently visible: n.a.
- 4.8.4. for Specific vehicle booster cushion ECRS, the Specific vehicle booster cushion ECRS user instruction label shall permanently visible: n.a.
- 4.8.5. Marking for Booster cushion: n.a.
- 4.9. Marking for ECRS with an impact shield: n.a.
- 4.10. Any removable insert, shall have a permanently attached label to indicate the brand, model and size range of the Enhanced Child Restraint System to which it belongs: fulfilled
- 4.11. A Booster seat that converts to a Booster cushion by a removable backrest, shall have a permanently attached label on the backrest, to indicate the brand and model of the Enhanced Child Restraint System to which it belongs and the size range: n.a.



Technical Report No.:

CW130 – 26 – TAC

Regulation:

UN Reg. No. 129.04

Manufacturer:

Type:

5/19

- 4.12. ECRS shall have a permanently attached label to inform the user of the appropriate method of restraint of the child over the entire stature range declared by the manufacturer: fulfilled
- 4.13. Marking for Integral Belted Enhanced Child Restraint System
- 4.13.1. for Universal Belted ECRS, the Universal Belted ECRS user instruction label shall permanently visible: fulfilled
- 4.13.2. for Specific vehicle Belted ECRS, the Specific vehicle Belted user instruction label shall permanently visible: n.a.
- 4.14. Additional markings: fulfilled

6. General specifications

6.1. Positioning and securing on the vehicle

- 6.1.2.5.& 6.1.3.4. Measurement from Cr to load bearing point (Left & Right)

Item		Measured	Limit
Measurement from Cr to load bearing point	Left	220mm	≥150mm
	Right	220mm	≥150mm

Sample No. 1: meet the requirements

- 6.1.2.6.& 6.1.3.5. Belt remaining on spool

Item		Measured	Limit
Belt remaining on spool	Integral	320mm	≥150mm
	Non-integral	-	-
	Booster cushion	-	-

Sample No. 1: meet the requirements

6.2. Configuration of the ECRS

- 6.2.1.4. Lap strap position when smallest & largest dummies are installed: fulfilled
- 6.2.1.5. Angle α and β measured with smallest & largest dummies: n.a.

Technical Report No.:

CW130 – 26 – TAC

Regulation:

UN Reg. No. 129.04

Manufacturer:

Type:

6/19

6.3. ECRS specification

6.3.1. Material

Items	Signed Declaration Received?	Test Report Reference (If applicable)
6.3.1.1. Toxicity	See Appendix 3 of information document	SHHL2404019113TY
6.3.1.2. Flammability	See Appendix 3 of information document	SHHL2404019113TY

6.3.2. General characteristics

6.3.2.1. Internal geometric characteristics

		Unit	Measured	Limit
Declared stature range	40-87cm			
For Integral ECRS	40-87cm			
The minimum occupant size	Minimum Shoulder Height (E1)	cm	27.0	<27.4
The maximum occupant size	Sitting Height (B)	cm	54.7	≥54.2
	Shoulder Breadth (C)	cm	32.7	≥27.2
	Hip Breadth (D)	cm	29.3	≥22.2
	Maximum Shoulder Height (E2)	cm	35.0	≥34.4

Sample No. 1: meet the requirements

6.3.2.2. External dimensions

Configuration Measured	Rearward facing, Integral, 40-87cm
ISO volume	R2
ECRS adjustments that fit within volume	
Headrest position	Top position (Stepless adjust)
Reclined position	fixed
Side wing position	n.a.
Verification photos of physical check	fulfilled
Verification image if checked using CAD drawing	n.a.

Sample No. 1: meet the requirements

6.3.2.3. Mass

	Item	Measured	Limit
Mass	Mass of CRS [kg]	2.3 ± 0.1 kg	-
	Max. Mass of Occupant [kg]	13 kg	-
	Mass of System [kg]	15.3 ± 0.1 kg	≤33 kg

Sample No. 1: meet the requirements

6.3.3. ISOFIX attachments:

n.a.

Technical Report No.:

CW130 – 26 – TAC

Regulation:

UN Reg. No. 129.04

Manufacturer:

Type:

7/19

- 6.3.4. ISOFIX ECRS top tether strap specifications: n.a.
- 6.3.5. i-Size ECRS support-leg and support-leg foot requirements: n.a.
- 6.3.6. Lower tether strap specifications: n.a.
- 6.3.7. Generic lower tether bracket specifications: n.a.
- 6.3.8. Generic lower tether bracket strength test: n.a.
- 6.4. Control of marking: fulfilled
- 6.5. Control of instructions on installation and the instructions for use: fulfilled
- 6.6. Provisions applicable to the assembled restraint
- 6.6.1. Resistance to corrosion (only the corrosible parts were tested): fulfilled

6.6.2. Energy absorption

	Area of headform impact		Headform deceleration
Deceleration of headform [g] (limit 60g)	The middle of head backrest		7.1
	The sides of head backrest	left side wing	9.1
		right side wing	6.6
Depth of the side wings* ≥90 mm	fulfilled		

*only apply for rearward-facing device

Sample No. 2: meet the requirements

6.6.3. Overturning

	ECRS orientation	Installation Methods	Direction of rotation				Mass of the dummy [kg]
			Clock wise	Anti-clock wise	Roll ahead	Roll back	
Dummy's head vertical movement [mm] (limit 300 mm)	Rearward-facing (40-87cm)	Adult safety-belt	154	167	179	190	3.5
			130	157	164	188	11.3

Sample No. 3: meet the requirements

6.6.4. Dynamic test

Type of dynamic test device:	Acceleration
Acceleration curves:	meet the requirements
Position of buckle during the test:	on the dummy abdomen
Configuration of Test samples: (Sample No. 4 to No. 12)	Universal belted ECRS, integral, rearward-facing (40-87cm).
Remarks:	Detail results of dynamic test see below <i>Table 1 to Table 3</i>

Table 1

Testing parameter		Limit	Result		
ECRS Class		-	integral		
ECRS orientation		-	rearward-facing		
Impact direction		-	frontal		
Backrest position		-	fixed		
Sample No.		-	4	5	6
Used dummy		-	Q0	Q1	Q1.5
Mass of dummy [kg]		-	3.5	9.6	11.3
Trolley impact speed [km/h]		50-52	51.1	50.9	51.0
Head performance criterion		-	90	169	125
Head acceleration 3ms [g]		≤75	34.2	44.4	39.6
Chest acceleration 3ms [g]		≤55	35.2	44.2	39.5
Chest deflection [mm]		-	-	4.5	4.1
Upper neck tension force [N]		-	77	491	420
Upper neck flexion moment [Nm]		-	10.8	14.7	17.4
Abdominal pressure [bar]	L	≤1.2	-	-	0.01
	R	≤1.2	-	-	0.01
Maximum of head displacement	x [mm] (horizontal)	≤700	447	606	610
	at time [ms]	-	58	86	90
	Contact 100mm bar	-	no	no	no
	z [mm] (vertical)	≤800	496	616	603
	at time [ms]	-	166	190	232
	no pass DE plane	no	no	no	no
Buckle open force after [N]		≤80	62	60	63
Failure or breakage		no	no	no	no
Belt Force [N]	Shoulder	45-55	50	49	50
	Lap	45-55	47	51	48

Samples No. 4 to No. 6 fulfilled the dynamic test requirements.

Table 2

Testing parameter		Limit	Result		
ECRS Class		-	integral		
ECRS orientation		-	rearward-facing		
Impact direction		-	rear		
Backrest position		-	fixed		
Sample No.		-	7	8	9
Used dummy		-	Q0	Q1	Q1.5
Mass of dummy [kg]		-	3.5	9.6	11.3
Trolley impact speed [km/h]		32-34	32.3	32.5	33.7
Head performance criterion		-	64	76	53
Head acceleration 3ms [g]		≤75	38.0	33.2	27.2
Chest acceleration 3ms [g]		≤55	47.8	36.8	34.3
Chest deflection [mm]		-	-	6.9	6.8
Upper neck tension force [N]		-	139	606	608
Upper neck flexion moment [Nm]		-	9.0	14.3	10.5
Abdominal pressure [bar]	L	≤1.2	-	-	0.10
	R	≤1.2	-	-	0.10
Maximum of head displacement	x [mm] (horizontal)	≤700	385	439	445
	at time [ms]	-	1	1	1
	Contact 100mm bar	-	no	no	no
	z [mm] (vertical)	≤800	482	566	564
	at time [ms]	-	120	83	83
no pass DE plane		no	no	no	no
Buckle open force after [N]		≤80	59	61	63
Failure or breakage		no	no	no	no
Belt Force [N]	Shoulder	45-55	52	49	50
	Lap	45-55	49	52	51

Samples No. 7 to No. 9 fulfilled the dynamic test requirements.

Table 3

Testing parameter	Limit	Result		
ECRS Class	-	integral		
ECRS orientation	-	rearward-facing		
Impact direction	-	lateral		
Backrest position	-	fixed		
Sample No.	-	10	11	12
Used dummy	-	Q0	Q1	Q1.5
Mass of dummy [kg]	-	3.5	9.6	11.3
Door bench relative velocity [m/s]	6.375-7.25	7.05	6.91	7.03
Head performance criterion	≤600	343	280	347
Head acceleration 3ms [g]	≤75	74.7	66.1	73.7
Upper neck tension force [N]	-	199	575	597
Upper neck flexion moment [Nm]	-	9.6	11.5	9.2
Head containment (No head contact and not exceed vertical plane)		no	no	no
Buckle open force after [N]	≤80	62	62	58
Failure or breakage	no	no	no	no
Belt Force [N]	Shoulder	45-55	50	51
	Lap	45-55	53	52

Samples No. 10 to No. 12 fulfilled the dynamic test requirements.

6.6.5. Resistance to temperature

(only the relevant parts were tested): fulfilled

6.7. Provisions applicable to individual components of the restraint

6.7.1. Buckle

6.7.1.1. General requirements for buckles

~6.7.1.5. (including dimensional and geometrical): fulfilled

Buckle	Result	Limit
Width for enclosed [mm]	-	≥15
Area for enclosed [cm ²]	-	≥4.5
Width for non-enclosed [mm]	23	≥10
Area for non-enclosed [cm ²]	4.8	≥2.5

6.7.1.6. The buckle shall be test by heat and operate 5,000 ± 5 opening and closing cycles, before dynamic test:

fulfilled

Technical Report No.:

CW130 – 26 – TAC

Regulation:

UN Reg. No. 129.04

Manufacturer:

Type:

11/19

6.7.1.7. Buckle releasing force before and after
dynamic test: fulfilled

Buckle	Result	Limit
Unloaded buckle opening force [N]	44	40~80
Loaded buckle opening force [N]	63	80

6.7.1.8. Strength of the buckle
Buckle shall withstand 4kN for mass limit
not greater than 13kg: fulfilled

Buckle	Result	Limit
Sample 1	7113N	≥4000N
Sample 2	7569N	

6.7.2. Adjusting device

6.7.2.1. General requirements for adjusting
~6.7.2.4. device: fulfilled

6.7.2.5. Microslip testing, the amount of strap
slip shall not exceed 25mm for one
adjusting device or 40mm for all adjusting
devices: fulfilled

6.7.2.6. The adjuster must not break or become
detached when test for ease of
adjustment: fulfilled

6.7.2.7. An adjuster shall be test by operate 5,000
± 5 cycles, before dynamic test: fulfilled

Item		Measured	Limit
Manual adjusting force [N]		38	≤50
Repeated operation before dynamic test [cycles]		5000	5000 ± 5
Microslip [mm]	Sample 1	0	≤25
	Sample 2	0	

6.7.3. Retractors: n.a.

Technical Report No.:

CW130 – 26 – TAC

Regulation:

UN Reg. No. 129.04

Manufacturer:

Type:

12/19

6.7.4. Straps

			Requirements	Measured value	Result
Strap			-	25 mm	
Strap width [mm] strained by 75% of its breaking load	Sample 1	≥25	25.0	pass	
	Sample 2	≥25	25.0	pass	
Strength F [kN] after room conditioning	Sample 1 (F1)		12.4	pass	
	Sample 2 (F2)		12.4	pass	
Difference between F1 and F2 ($< 10\%$ of the bigger value of F1, F2)			0	pass	
Force [kN] of the strap destruction after its special conditioning	75% of the average of F1 and F2		9.3	-	
	light conditioning	Sample 1	≥3.6 kN, and ≥75% of the average of F1 and F2	9.7	pass
		Sample 2		9.7	pass
	cold conditioning	Sample 1		12.4	pass
		Sample 2		12.2	pass
	heat conditioning	Sample 1		12.3	pass
		Sample 2		12.3	pass
	exposure to water	Sample 1		12.4	pass
		Sample 2		12.6	pass
	abrasion conditioning	Sample 1		-	-
Sample 2		-		-	

6.7.5. ISOFIX attachment specifications: n.a.

6.7.6. Lock-off devices: n.a.

6.8. Classification: fulfilled

9. Production qualification

9.2. Production qualification test

Configuration of test samples:
(Sample No. PQT-1 to 5)

Universal belted ECRS, integral, rearward-facing (40-87cm). Backrest position: Fixed. Test with Q1.5 dummy (11.3kg), frontal impact.

Remarks: n.a.

Technical Report No.:

CW130 – 26 – TAC

Regulation:

UN Reg. No. 129.04

Manufacturer:

Type:

13/19

PQT No.	Maximum horizontal head excursion [mm] (L: 700)	Head acc. 3ms [g] (≤ 75)	Chest acc. 3ms [g] (≤ 55)	Head criterion - HPC	Abdominal pressure [bar] (≤ 1.2)		Upper neck tension force [N]	Upper neck flexion moment [Nm]	Chest def. [mm]
1	612	40.2	40.5	135	0.01	0.01	427	17.1	4.1
2	622	36.0	38.4	102	0.01	0.01	471	16.7	4.0
3	638	41.9	38.9	147	0.01	0.01	500	16.3	4.1
4	632	41.7	41.4	147	0.01	0.01	444	17.6	4.5
5	613	41.8	39.5	134	0.02	0.01	410	17.8	4.5
Calculation X	623.4	40.3	39.7	-	-	-	-	-	-
Calculation S	10.3	2.2	1.1	-	-	-	-	-	-
X + S	633.7	42.5	40.8	-	-	-	-	-	-

No value shall exceed 1.05 L, and
X + S shall not exceed L:

Samples PQT-1 to 5 fulfilled the
production qualification test requirements.

14. Information for users

14.1. ECRS is accompanied by instructions in the language of the country where the device is sold:

fulfilled

14.2. Instructions on installation:

fulfilled

14.3. Instructions for use:

fulfilled

3. Specimen submitted to test on:

2025-11-29

4. Date of test:

2025-11-29 to 2026-01-14

III. Manufacturer's information folder

No. 129- -00

27 pages total of 2025-12-22

IV. Other documentation

Graphs

-Acceleration curves of sled test trolley:

Pages 15 to 19

Technical Report No.:
Regulation:
Manufacturer:
Type:

TÜV SÜD Czech s.r.o.
CW130 – 26 – TAC
UN Reg. No. 129.04
Taizhou Ubest Juvenile Products Co., Ltd., China
UB516R



14/19

V. Attachments

No attachments

The results presented above relate to the tested items only and to the sample as provided by the customer.

Measuring and test equipment and test site meet the requirements of the applicable legislation. This report shall never be reproduced incomplete and without a written permission of the testing laboratory. TÜV SÜD CZECH confidentiality degree: confidential.

A decision rule (in the section Final assessment) without consideration of measurement uncertainties is used for statement of conformity.

VI. Final assessment

The described sample in tested items **complies**
with the requirements of UN Regulation No. 129.04
for issue of approval certificate.

This technical report consists of pages No. 1 to 19.

Test report approved by

Václav Baloun

Report author

Vit Bursik

Officially recognized expert

Prague, 2026-01-20



Technical Report No.:
Regulation:
Manufacturer:
Type:

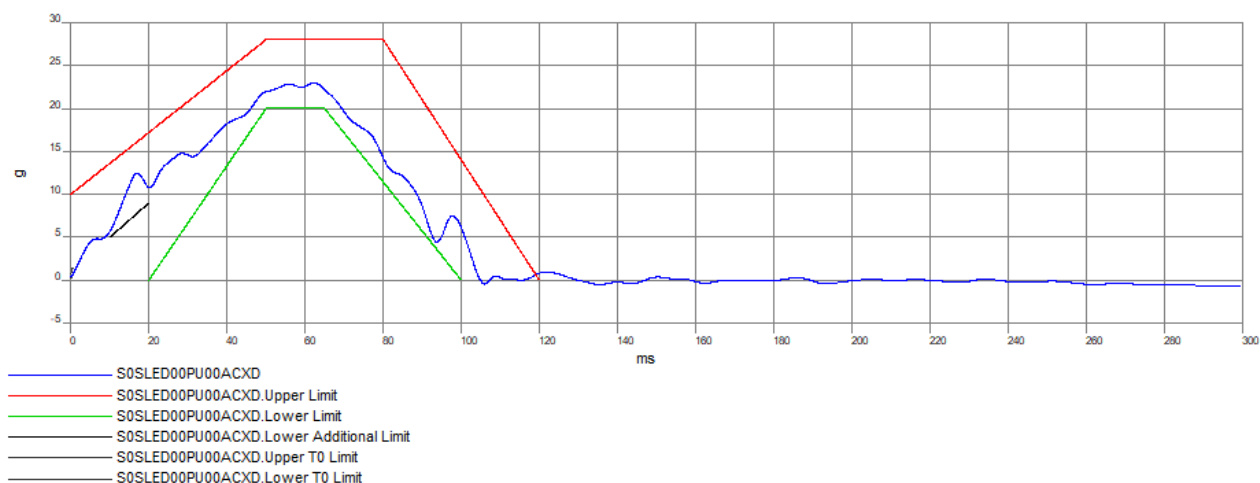
TÜV SÜD Czech s.r.o.
CW130 – 26 – TAC
UN Reg. No. 129.04



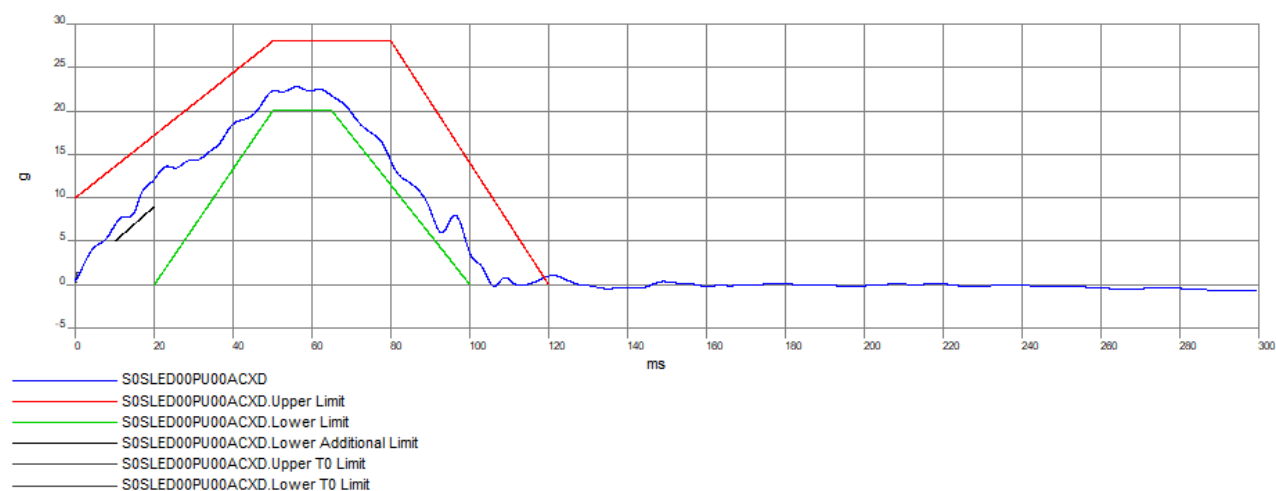
15/19

Graphs: Acceleration curves of sled test trolley

- a) Tested sample No. 4, dummy Q0, frontal impact; Universal belted ECRS, integral, rearward facing, with Ø100mm bar.



- b) Tested sample No. 5, dummy Q1, frontal impact; Universal belted ECRS, integral, rearward facing, with Ø100mm bar.



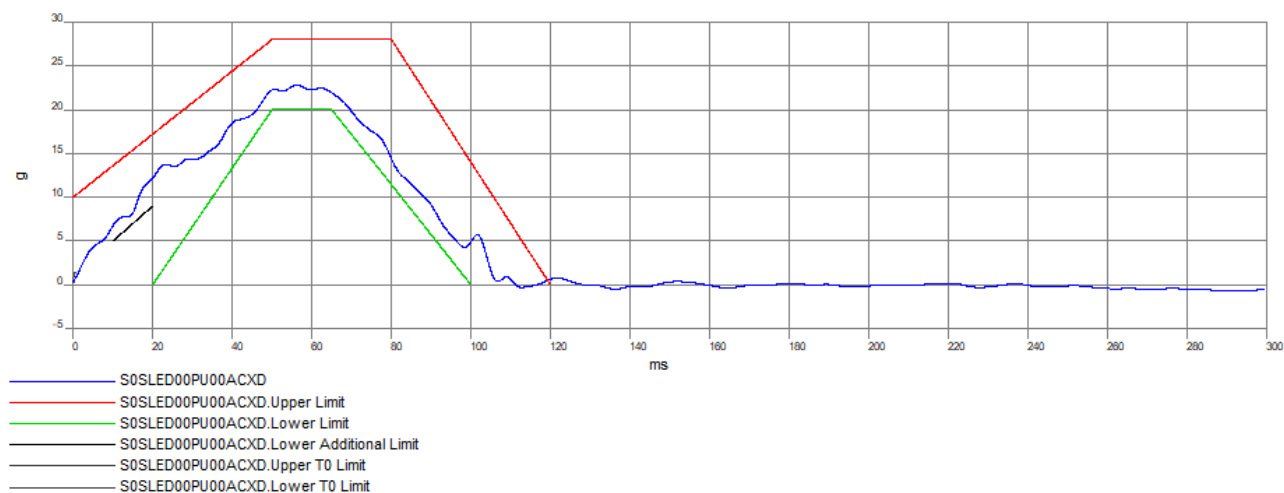
Technical Report No.:
Regulation:
Manufacturer:
Type:

TÜV SÜD Czech s.r.o.
CW130 – 26 – TAC
UN Reg. No. 129.04

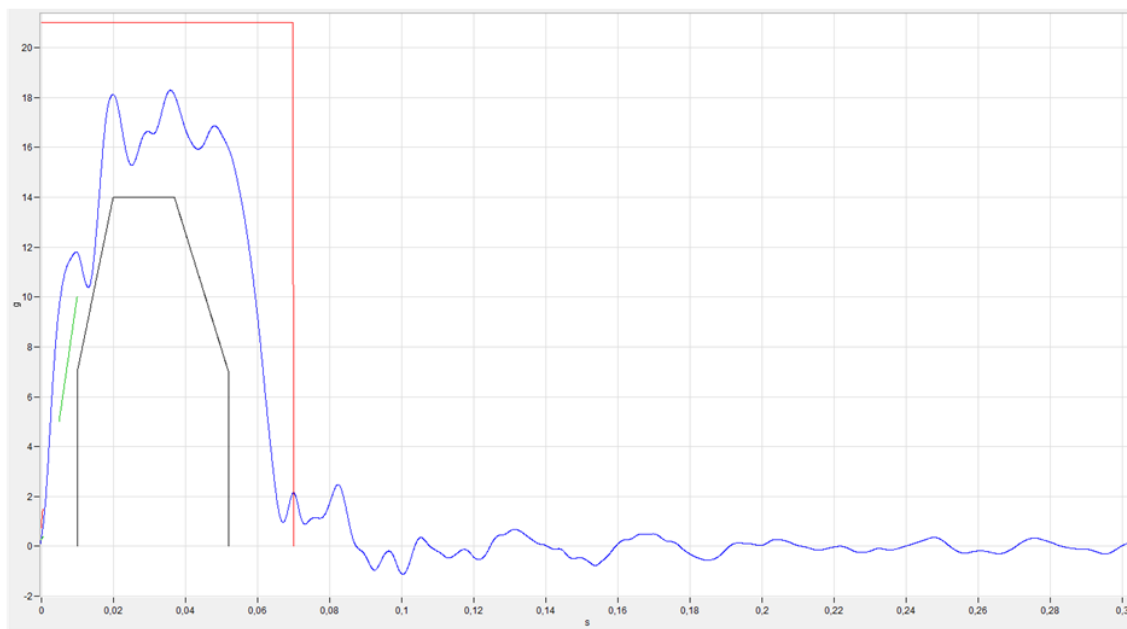


16/19

- c) Tested sample No. 6, dummy Q1.5, frontal impact; Universal belted ECRS, integral, rearward facing, with Ø100mm bar.



- d) Tested sample No. 7, dummy Q0, rear impact; Universal belted ECRS, integral, rearward facing, with Ø100mm bar.



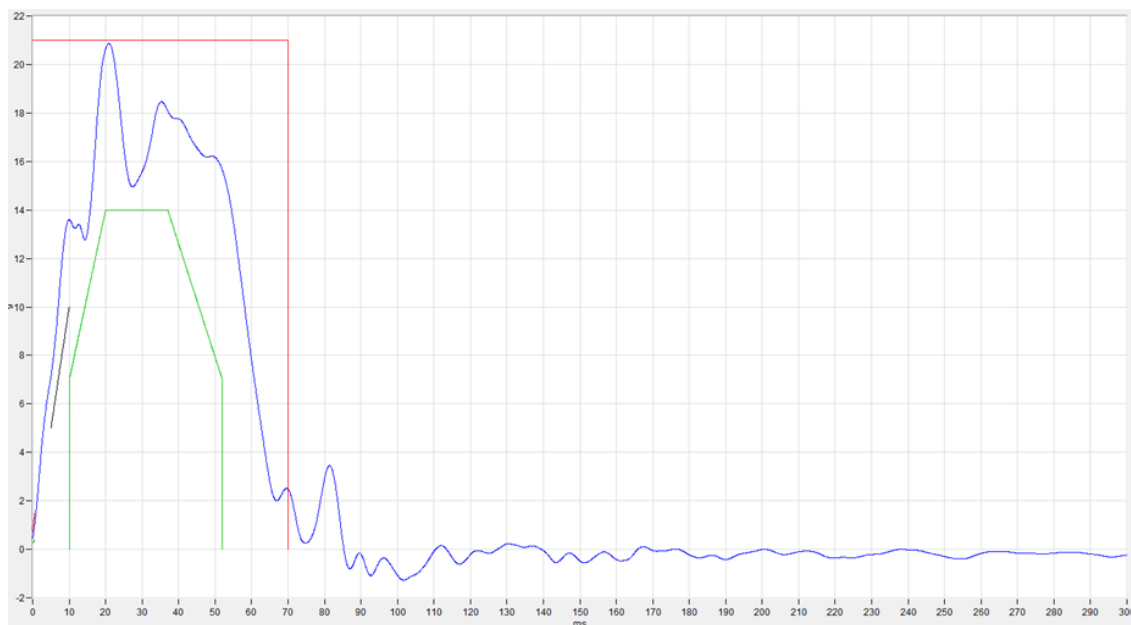
Technical Report No.:
Regulation:
Manufacturer:
Type:

TÜV SÜD Czech s.r.o.
CW130 – 26 – TAC
UN Reg. No. 129.04

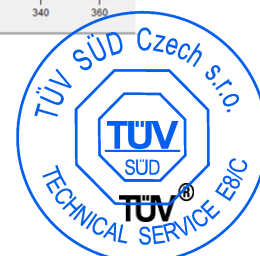
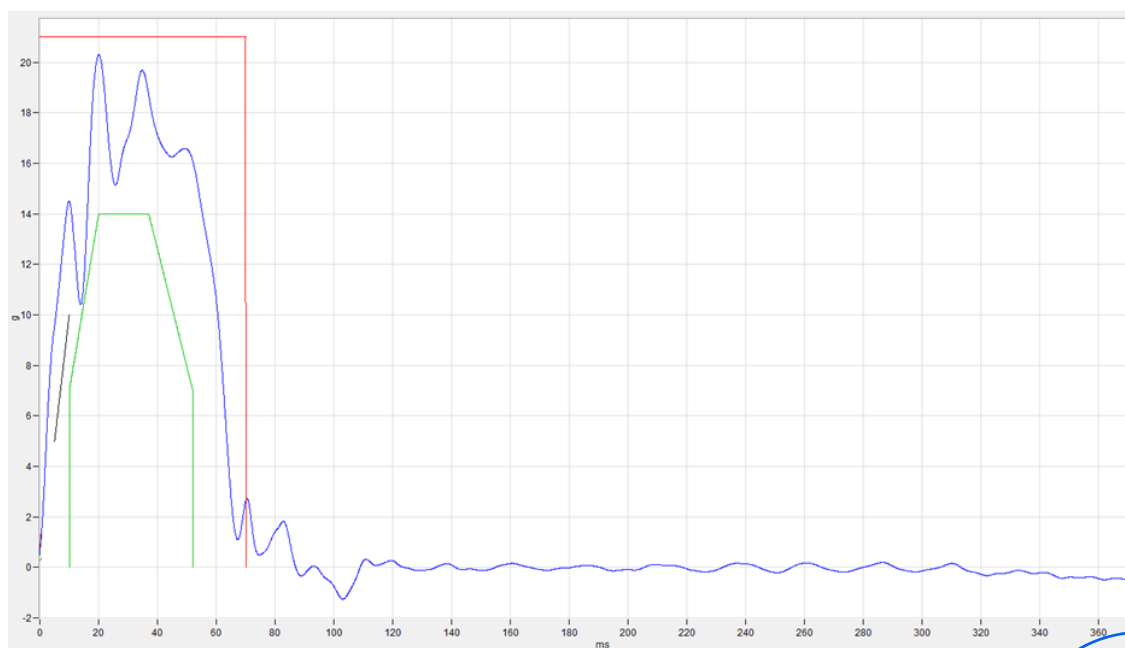


17/19

- e) Tested sample No. 8, dummy Q1, rear impact; Universal belted ECRS, integral, rearward facing, with Ø100mm bar.



- f) Tested sample No. 9, dummy Q1.5, rear impact; Universal belted ECRS, integral, rearward facing, with Ø100mm bar.



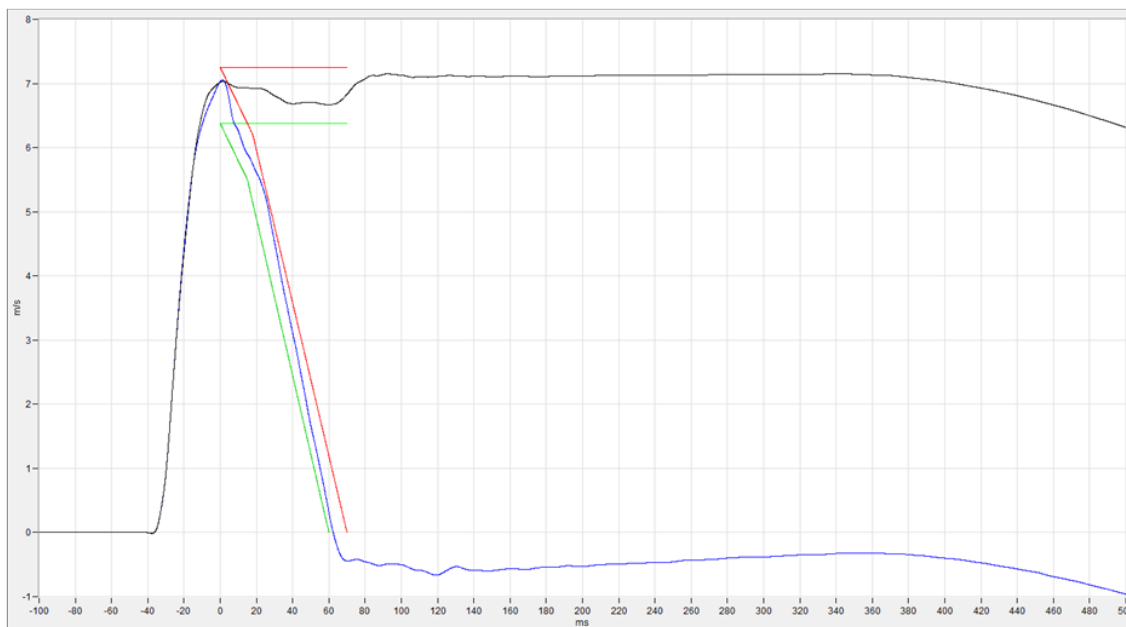
Technical Report No.:
Regulation:
Manufacturer:
Type:

TÜV SÜD Czech s.r.o.
CW130 – 26 – TAC
UN Reg. No. 129.04

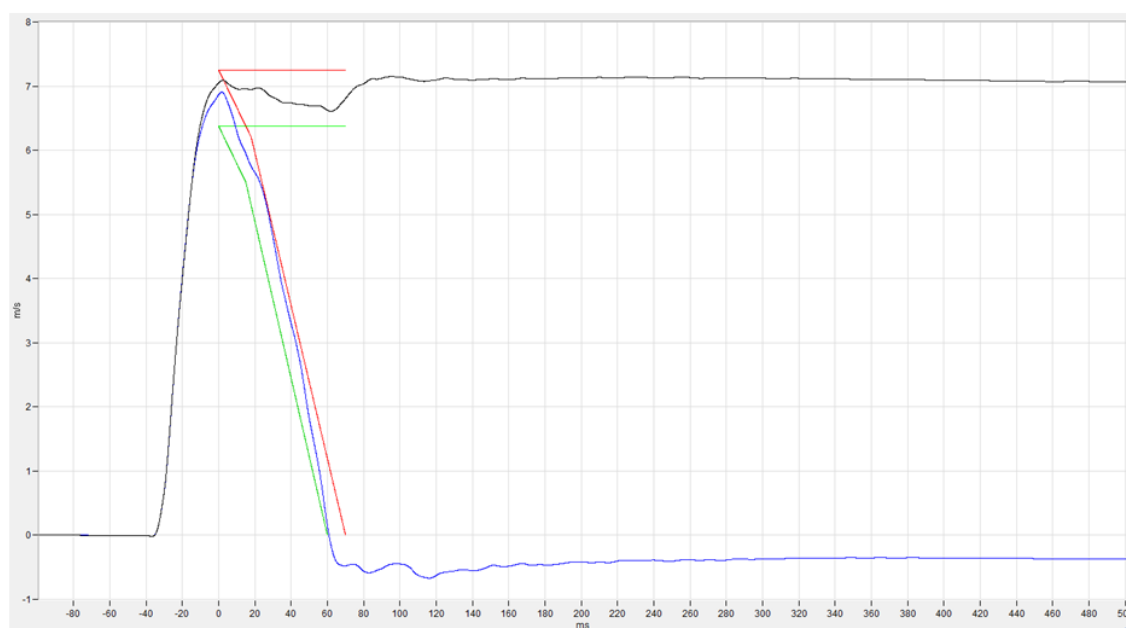


18/19

- g) Tested sample No. 10, dummy Q0, lateral impact; Universal belted ECRS, integral, rearward facing.



- h) Tested sample No. 11, dummy Q1, lateral impact; Universal belted ECRS, integral, rearward facing.



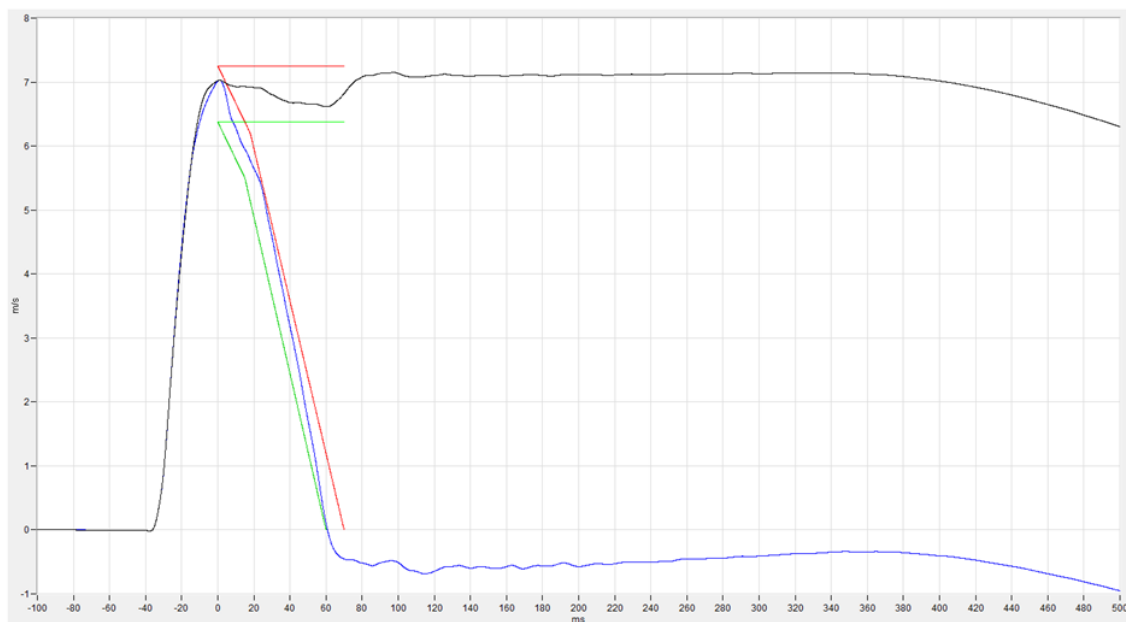
Technical Report No.:
Regulation:
Manufacturer:
Type:

TÜV SÜD Czech s.r.o.
CW130 – 26 – TAC
UN Reg. No. 129.04



19/19

- i) Tested sample No. 12, dummy Q1.5, lateral impact; Universal belted ECRS, integral, rearward facing.



End of the technical report

