


# CLEPA

Association of Automotive Suppliers

Informal document GR  
(63rd GRSP, 14-18 May  
Agenda item 19)



Response to .../GRSP/2018/17-18 submitted by Spain on  
behalf of the TSG

**Approval categories and stature limits for booster seats**

Commission of UN Working Party on Passive Safety (GRSP)

*14-18 May 2018*



# There are two booster seat type-approval categories in R129 – i-Size or specific-vehicle

Category	External dimensions	Dynamic test
Booster seat	Fits in ISO/B2 envelope	Test bench
Specific vehicle booster seat (option 1')	Fits in no envelope; only in vehicles specified in a list ( <u>submitted at type-approval</u> )	Vehicle body shell or complete vehicle
Specific vehicle booster seat (option 2')	Fits in ISO/B3 envelope (list not mandatory)	Test bench or vehicle body shell

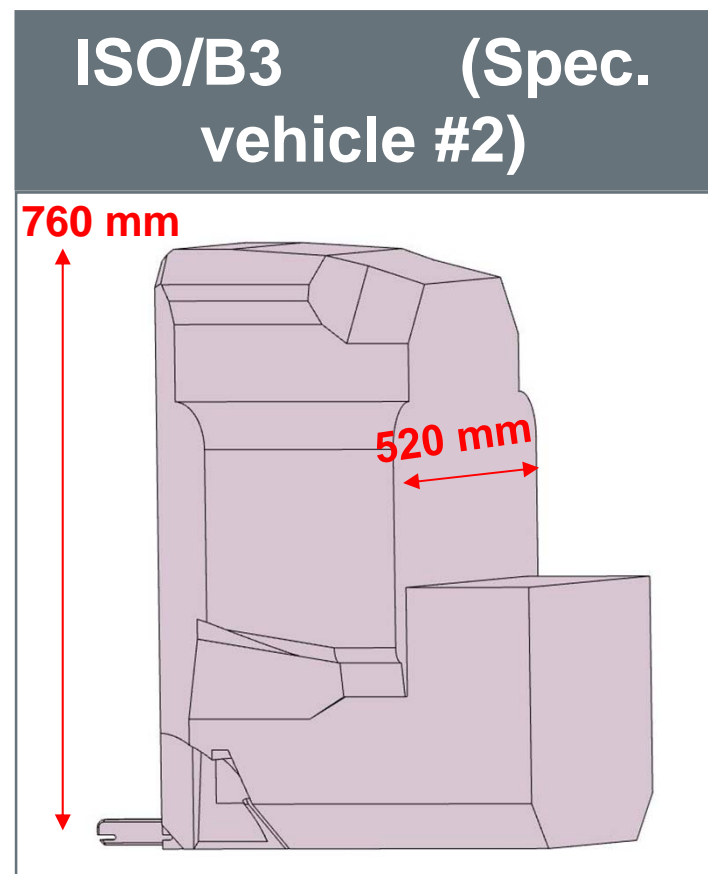
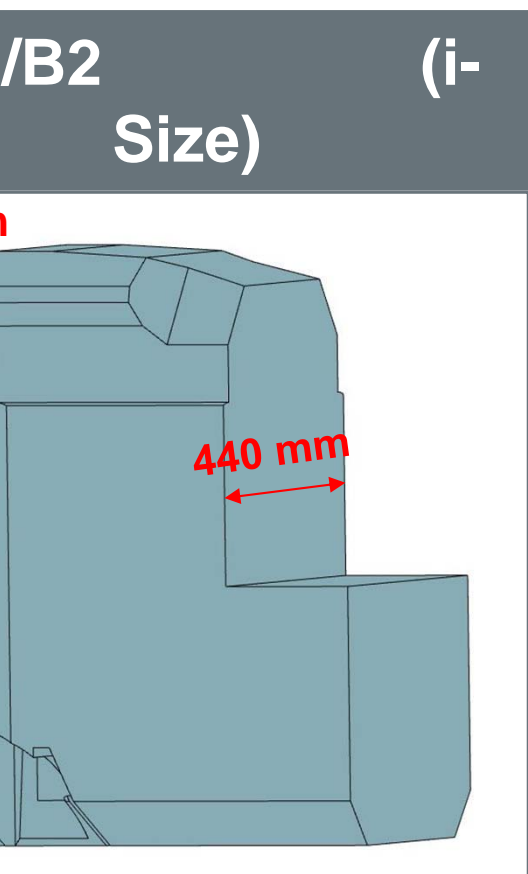


Replicates R44 semi-universal philosophy (without a separate category)

Minimum stature is (100 cm) set for boosters, but no maximum – for either category



Both booster seat envelopes are designed to accommodate children up to 135 cm (95<sup>th</sup> percentile)



- Booster seats need to be approved to 150 cm (per EU belt-wearing laws)
  - No 150 cm envelope
  - **How are 150 cm boosters treated?**

Note: A booster for a taller stature may not fit in the B2 or B3 envelope – limiting use to 135 cm might exclude some children unnecessarily

# Internal dimensions test carried out to 135 cm – User manual statement for greater statures



## 5.3.2.2.2. Non-Integral Class Enhanced Child Restraint Systems

The maximum external dimensions for the width, height and depth of the Enhanced Child Restraint System and the locations of the ISOFIX anchorages system if any, with which its attachments shall engage, shall be defined by the i-Size booster seat fixture as defined in paragraph 2.17.2. of this Regulation.

- (a) i-Size booster seat Enhanced Child Restraint Systems shall fit within the ISO/B2 size envelope;
- (b) Specific vehicle booster seat Enhanced Child Restraint Systems shall fit:
  - (i) in vehicle(s) specified in a list; or
  - (ii) at least in one of ISO/B2 –ISO/B3 size envelope as described in Annex 17, Appendix 2 of regulation No. 16.

When conducting this assessment, the non-integral Enhanced Child Restraint System shall be adjusted to accommodate children of 135 cm stature (height, depth and width dimensions as defined in Annex 18) or to the largest size of its declared stature range if the upper limit is below 135 cm. If the Non-integral Enhanced Child Restraint System is capable of being adjusted to different positions of seat surface inclination, the fitting assessment shall be done in at least one position. If other positions of inclination are outside the limits of the applicable size envelope, the user manual shall indicate that the child restraint may not fit in all approved vehicles when used in one of these positions. If the Non-integral Enhanced Child Restraint System has a declared stature range above 135 cm, and if it is necessary to adjust the child restraint outside the limits of the applicable size envelope for such adjustments (height, depth and width dimensions), the user manual shall indicate that the child restraint may not fit in all approved vehicles when used in one of these positions."

- Consistent with approach for backrest angle
- Taller adjustment is a ‘comfort feature’
- Implies i-Size or specific-vehicle (Option 2) booster can be approved to 150 cm without further categorisation
- **But: it seems a matter of interpretation**

Internal dimensions test carried out to 135 cm –  
User manual statement for greater statures



**If the Non-integral Enhanced Child Restraint System has a declared stature range above 135 cm, and if it is necessary to adjust the child restraint outside the limits of the applicable size envelope for such adjustments (height, depth and width dimensions), the user manual shall indicate that the child restraint may not fit in all approved vehicles when used in one of these positions."**

# Internal dimensions test carried out to 135 cm – User manual statement for greater statures



## 5.3.2.2.2. Non-Integral Class Enhanced Child Restraint Systems

The maximum external dimensions for the width, height and depth of the Enhanced Child Restraint System and the locations of the ISOFIX anchorages system if any, with which its attachments shall engage, shall be defined by the i-Size booster seat fixture as defined in paragraph 2.17.2. of this Regulation.

- (a) i-Size booster seat Enhanced Child Restraint Systems shall fit within the ISO/B2 size envelope;
- (b) Specific vehicle booster seat Enhanced Child Restraint Systems shall fit:
  - (i) in vehicle(s) specified in a list; or
  - (ii) at least in one of ISO/B2 –ISO/B3 size envelope as described in Annex 17, Appendix 2 of regulation No. 16.

When conducting this assessment, the non-integral Enhanced Child Restraint System shall be adjusted to accommodate children of 135 cm stature (height, depth and width dimensions as defined in Annex 18) or to the largest size of its declared stature range if the upper limit is below 135 cm. If the Non-integral Enhanced Child Restraint System is capable of being adjusted to different positions of seat surface inclination, the fitting assessment shall be done in at least one position. If other positions of inclination are outside the limits of the applicable size envelope, the user manual shall indicate that the child restraint may not fit in all approved vehicles when used in one of these positions. If the Non-integral Enhanced Child Restraint System has a declared stature range above 135 cm, and if it is necessary to adjust the child restraint outside the limits of the applicable size envelope for such adjustments (height, depth and width dimensions), the user manual shall indicate that the child restraint may not fit in all approved vehicles when used in one of these positions."

- Consistent with approach for backrest angle
- Taller adjustment is a ‘comfort feature’
- Implies i-Size or specific-vehicle (Option 2) booster can be approved to 150 cm without further categorisation
- **But: it seems a matter of interpretation**

# Example 1 – Literal interpretation of R129



Child booster seat or specific-vehicle booster seat (Option 2)



**E1**  
002585  
UN-Regulation No. 129/02

i-Size booster seat  
100 cm – 150 cm

or

**E1**  
002593  
UN-Regulation No. 129/02

Specific vehicle  
booster seat  
100 cm – 150 cm

Complies  
with  
ISO/B2

Complies  
with  
ISO/B3

- Easy for Te Services
- Easy for us

User manual states CRS may not fit in all vehicles when adjusted for children above 135 cm

# Example 2a – Alternative interpretation of R129



ze booster seat



002585

i-Size booster seat  
100 cm – 135 cm  
Specific vehicle  
booster seat  
135 cm – 150 cm

UN-Regulation No. 129/02

**Complies  
with ISO/B2**  
(until 135 cm)

- No envelope for 135 cm to 150 cm = Specific vehicle (Option 1) & fitting list submitted at type-approval
  - Fitting list is required for final 15 cm of stature range only
  - List would need to be seen by Technical Service and Extension issued when added to



# Example 2b – Alternative interpretation of R129



## Specific-vehicle booster seat (Option 2)



**E1**  
002585

Specific vehicle  
booster seat  
100 cm – 135 cm  
**[Specific vehicle  
booster seat  
135 cm – 150 cm]**  
UN-Regulation No. 129/02

**Complies  
with ISO/B3**  
(until 135 cm)

- No envelope for 135 cm to 150 cm = Specific vehicle booster seat (Option 1) & fitting list submitted at type-approval
  - Fitting list is required for final 15 cm of stature range only
  - List would need to be seen by Technical Service at Extension issued when added to

**CLEPA**

Association of Automotive Suppliers

**Thank you for your attention!**

**[www.clepa.eu](http://www.clepa.eu)**