



**CLEPA**  
*European Association of  
Automotive Suppliers*

Informal document GRSP-55-37  
(55th GRSP, 19 - 23 May 2013,  
agenda item 18)

# i-Size Pillars

**CLEPA**

**55th GRSP 21 May 2014**



Improved  
Performance

Modern dummy &  
New Criteria

Side Impact

Better  
adjustment to  
Children

Classification  
using Child Size

RF 15 Months  
Mandatory

Better  
Compatibility  
with Cars

Isofix Integral  
Universal

Better  
Compatibility



Modern dummy &  
New Criteria

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# New Dummies & Performance Criteria

Informal document GRSP-18-37  
(54th GRSP, 19-23 May 2013,  
agenda item 18)

- In addition to Chest Acceleration :
- Head Acceleration
- HPC
- Neck Load Monitored
- Missing Abdomen protection





Modern dummy &  
New Criteria

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Mandatory

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Compatibility

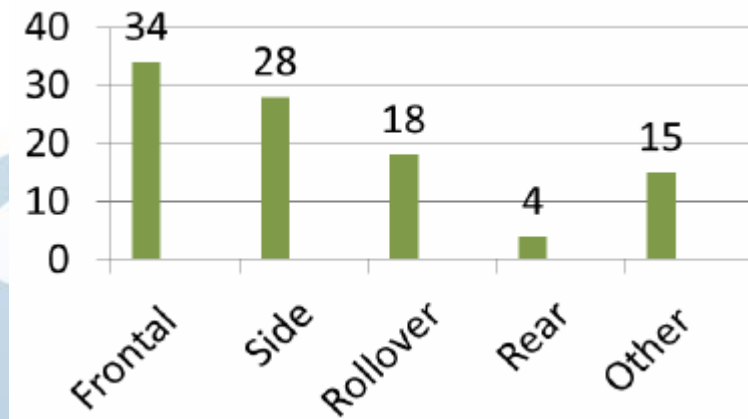


# Side Impact

## Casimir Child Accident Study

% Child Fatalities

206 killed



Door intrusion

Key Loading parameter



Head injuries preeminent





# Side Impact

R95 Side Worst Case  
FF Front Seat



R 129 Side Impact



Head injuries preeminent



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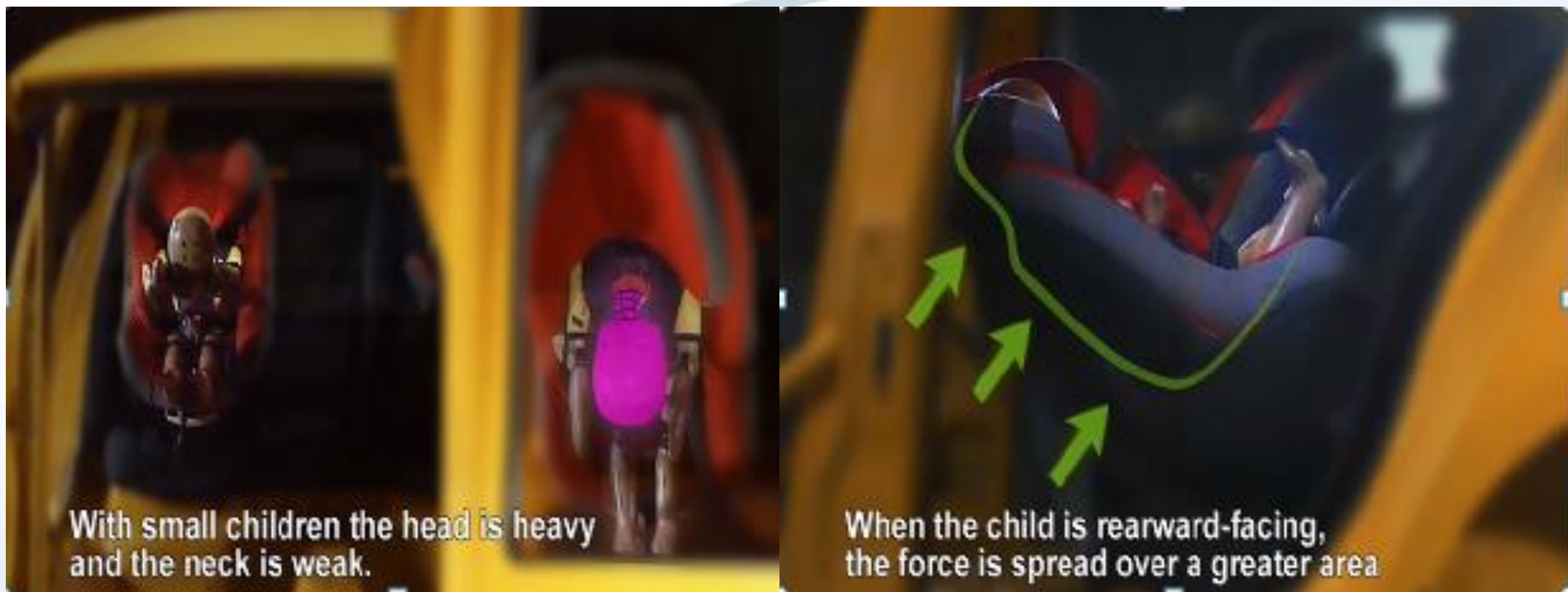


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# RF15 Months Mandatory

Better protect Head and Neck for the Youngest : RF 15 months mandatory





Modern dummy &  
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Mandatory

Isofix Integral  
Universal

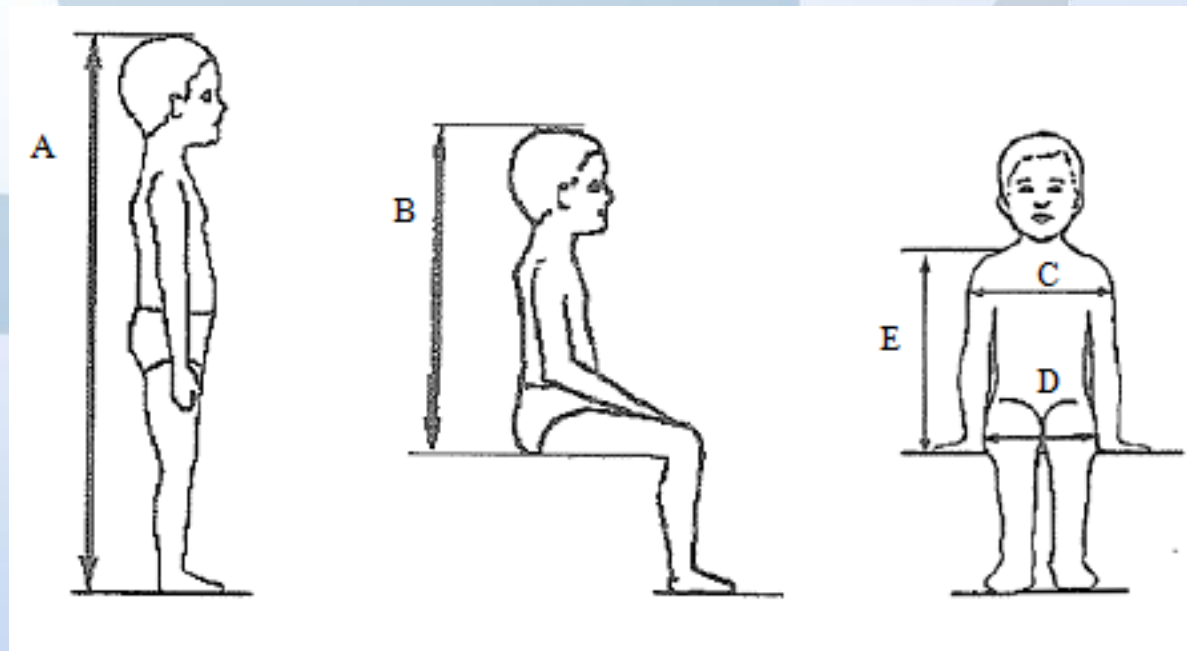
Better  
Compatibility



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# Classification using Child Size

- Better Fitment of the Child in the Seat





Modern dummy &  
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RF 15 Months  
Mandatory

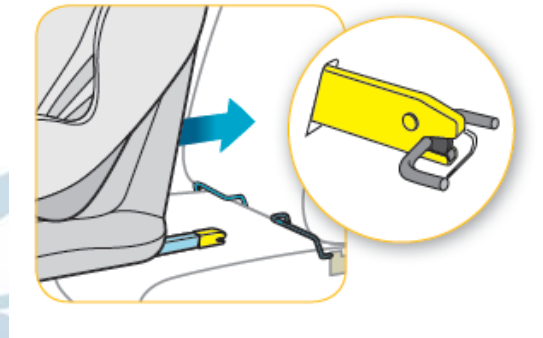
Isofix Integral  
Universal

Better  
Compatibility



# Isofix integral universal

## Isofix CRS



2 Lower Isofix anchorages +  
1 anti rotation device

Universal FF  
Semi – Universal  
RF  
(Isofix R44)



Top Tether



Support Leg

Semi – Universal  
(Isofix R44)

Universal  
(i-Size)

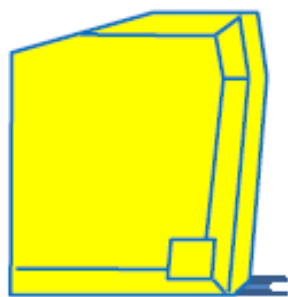


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# Isofix integral universal

Isofix Seating Position in car



F2X envelope



Top  
tether



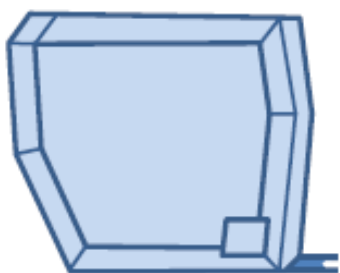


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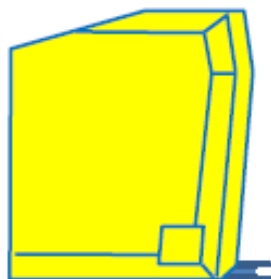
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# Isofix integral universal

i-Size Seating Position in car



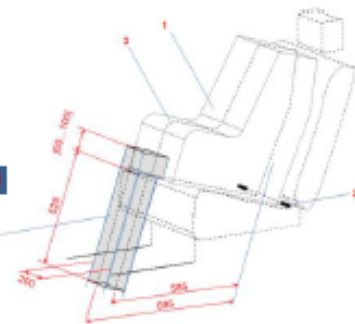
R2 envelope



F2X envelope



Top  
tether

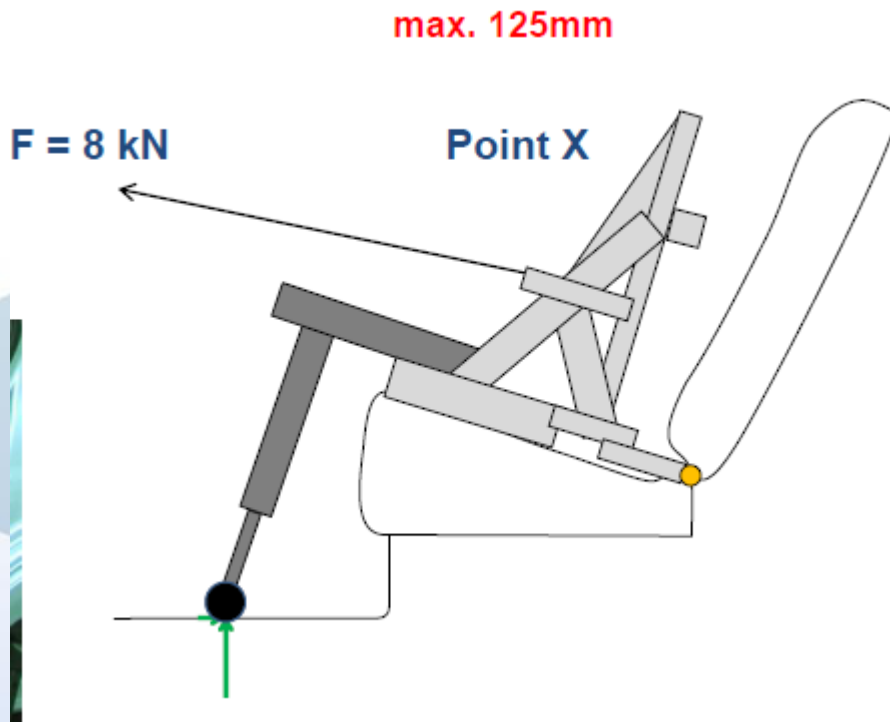


Support leg



# Isofix integral universal

Strength and Geometrical requirement for  
better compatibility with cars





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Mandatory

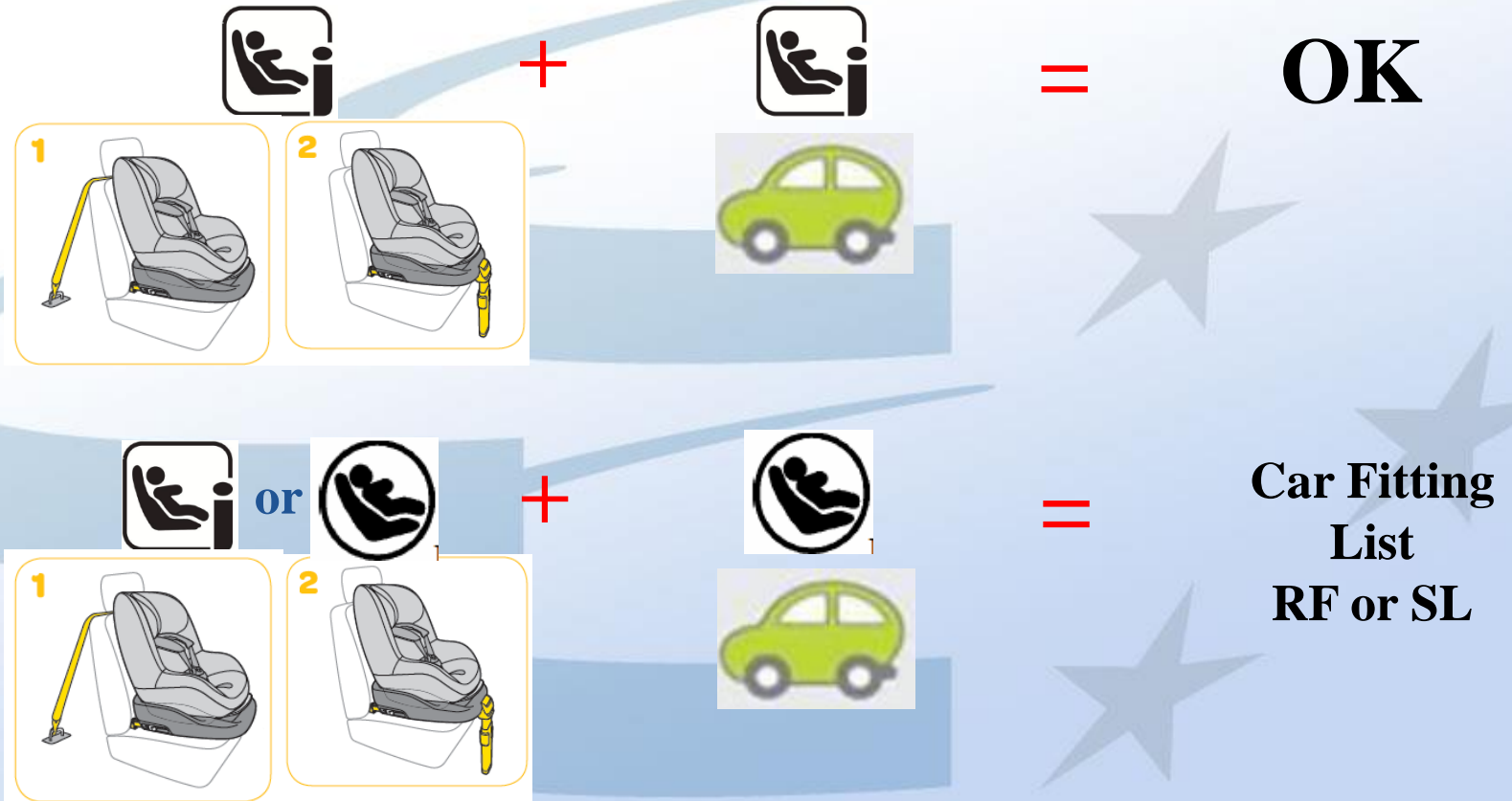
Isofix Integral  
Universal

Better  
Compatibility



# Better Compatibility

- Backward compatibility





# Summary

## Regulation 129 is an important improvement for Child Safety

- Ease of use for consumers :
  - Size classification
  - Better compatibility with cars with Plug and Play solutions
- Better Child protection
  - Side Impact
  - Longer rearward facing requirement
  - Modern dummy and more relevant criteria.