

Child Dummies

Q-Family



- Developed from 1996 on
 - Q0, Q1, Q1.5, Q3 and Q6 available
 - Reported to EEVC and GRSP
 - <http://eevc.org/publicdocs/publicdocs.htm>
 - http://www.unece.org/trans/main/wp29/wp29wgs/wp29grsp/crs_3.html
- Applied in “Child Seat Rating Scheme” by TRL
 - 5 Star rating scheme of CRS for UK market based on NPACS
 - See http://www.trl.co.uk/certification/child_seat_rating_scheme.htm
- Q- Series considered for usage in future EU Regulations
 - Initially only update of R44 related to ISOFIX seats
 - Front and Side Impact
 - Expected lead time 2012 - 2013
 - At later stage all CRS with updated Regulation
- Q6 Dummy considered by EuroNCAP
 - Rear seat passenger in frontal and side tests
 - Expected lead time 2012 – 2013

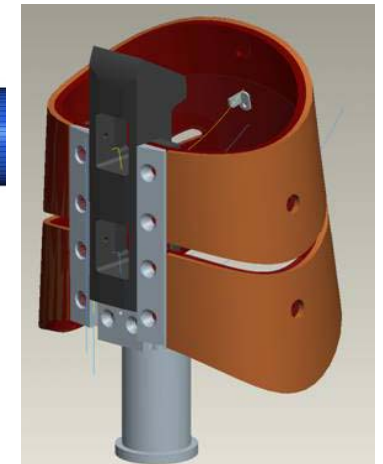
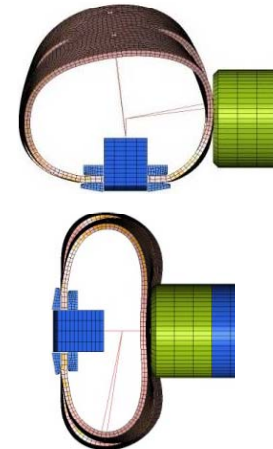
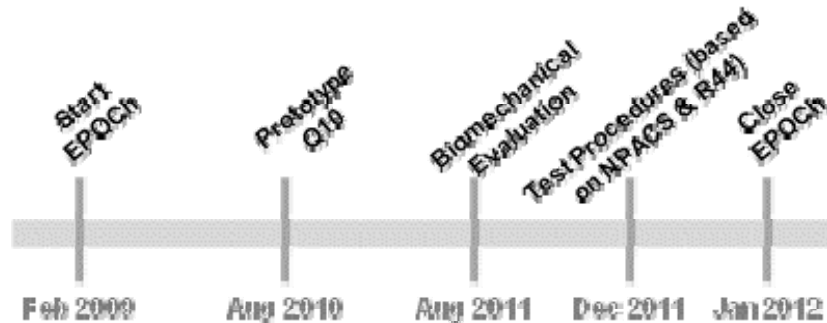
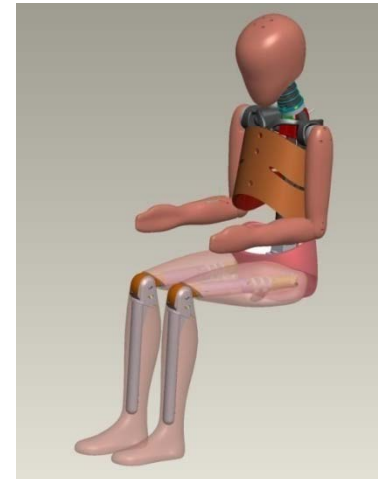


Child Dummies

Q10 Dummy



- Missing member of the Q Family
- Developed in EU Project EPOCH
 - TRL, IDIADA, Dorell, University of Surrey
 - Start Feb 2009, End Jan 2012
- Prototypes available from mid 2010
 - For EPOCH and for some 3rd parties at request



Q3 and Q6 Assessment criteria

- Assessment criteria not discussed yet by EuroNCAP
- Table below shows proposal made for GRSP Informal Group on Child Safety for CRS testing
 - Proposal prepared in discussions between RDW, TUB, INSIA-UPM, FTSS, CSI, BASt and TRL
 - See: <http://www.unece.org/trans/doc/2010/wp29grsp/CRS-14-06e.pdf>
 - Criteria apply to frontal applications
 - For side impact main focus is on head containment

Injury assessment criteria per dummy							
Criterion	Abbr.	Q0	Q1	Q1.5	Q3	Q6	Proposed risk
Head Impact Criterion (only in case of hard contact during in-vehicle testing)	HIC	523	491	578	780	1083	
Head Acceleration 3ms	A head 3ms	85	72	76	81	89	20%
Upper Neck Tension Force	Fz	546	1201	1364	1705	2304	
Upper Neck Flexion Moment	My						50%
Thorax Chest Deflection	D chest						tbd
Chest Acceleration 3 ms	A chest 3ms	55	55	55	55	55	R44 values