

Global Technical Regulations (GTR)

PEDESTRIAN PROTECTION

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Impact Mode	Impact Specs	EEVC WG 17	Euro NCAP		JNCAP		J-MLIT TRIAS63	GTR Rev No 9
			Lower limit	Upper limit	Lower limit	Upper limit		
Lower legform to bumper	Velocity (km/h)	40	40					40
	Impact angle (deg°)	0	0					0
	Acceleration (g's)	150	150	200				170 (250)
	Bending (deg°)	15	15	20				19
	Shear (mm)	6	6	7				6
Upper legform to bumper	Velocity (km/h)	40	40					40
	Impact angle (deg°)	0	0					0
	Sum of forces (kN)	5	5	6				7.5
	Bending (Nm)	300	300	380				510
Upper legform to bonnet leading edge	Velocity (km/h)	20 to 40	20 to 40					
	Impact angle (deg°)	10 to 47	10 to 47					
	Sum of forces (kN)	5	5	6				
	Bending (Nm)	300	300	380				
Adult headform (AH) / Child headform (CH) to windscreen	Velocity (km/h)		40		35			
	Impact angle (deg°)		65 (AH)/50 (CH)		65 (AH)/50 (CH)			
	WAD (mm)		1500 to 2100 (AH)/1000 to 1500 (CH)		1700 to 2100 (AH)/1000 to 1700 (CH)			
	Diameter (mm)		165 (AH)/130 (CH)		165 (AH)/165 (CH)			
	Mass (kg)		4.5kg/3.5kg		4.5kg/3.5kg			
	HPC		1000	1350	650	2000		
Adult headform to bonnet	Velocity (km/h)	40	40		35		32	35
	Impact angle (deg°)	65	65		65/90/50		65/90/50	65
	WAD (mm)	1500 to 2100	1700 to 2100		1700 to 2100		1700 to 2100	1700 to 2100
	Diameter (mm)	165	165		165		165	165
	Mass (kg)	4.8	4.5		4.5		4.5	4.5
	HPC	1000	1000	1350	650	2000	1000(2/3)*/2000(1/3)*	1000(2/3)*/1700(1/3)*
Child headform to bonnet	Velocity (km/h)	40	40		35		32	35
	Impact angle (deg°)	50	50		65/60/25		65/60/25	50
	WAD (mm)	1000 to 1500	1000 to 1700		1000 to 1350/1350 to 1700		1000 to 1700	1000 to 1700
	Diameter (mm)	130	165		165		165	165
	Mass (kg)	2.5	3.5		3.5		3.5	3.5
	HPC	1000	1000	1350	650	2000	1000(2/3)*/2000(1/3)*	1000(1/2)*/1700(1/2)* or 1000(2/3)#/1700(1/3)#

(AH) - adult head / (CH) - child head / *bonnet area / ^ child head form area / # entire bonnet



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