

§ 1203.14

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in the conditioning environment for a minimum of 2 minutes before testing is resumed. If the helmet is out of the conditioning environment beyond 3 minutes, testing shall not resume until the helmet has been reconditioned for a period equal to at least 5 minutes for each minute the helmet was out of the conditioning environment beyond the first 3 minutes, or for 4 hours, (whichever reconditioning time is shorter) before testing is resumed.

(d) Prior to being tested for impact attenuation, helmets 1-4 (conditioned in ambient, high temperature, low temperature, and water immersion envi-

ronments, respectively) shall be tested in accordance with the dynamic retention system strength test at §1203.16. Helmets 1-4 shall then be tested in accordance with the impact attenuation tests on the flat and hemispherical anvils in accordance with the procedure at §1203.17. Helmet 5 (ambient-conditioned) shall be tested in accordance with the positional stability tests at §1203.15 prior to impact testing. Helmets 5-8 shall then be tested in accordance with the impact attenuation tests on the curbstone anvil in accordance with §1203.17. Table 1203.13 summarizes the test schedule.

TABLE 1203.13—TEST SCHEDULE

	§ 1203.14 Peripheral vision	§ 1203.15 Positional stability	§ 1203.16 Retention system strength	§ 1203.17 Impact tests	
				Anvil	Number of Impacts
Helmet 1, Ambient	X	.....	X	X Flat	2
				X Hemi	2
Helmet 2, High Temperature .....	.....	.....	X	X Flat	2
				X Hemi	2
Helmet 3, Low Temperature .....	.....	.....	X	X Flat	2
				X Hemi	2
Helmet 4, Water Immersion .....	.....	.....	X	X Flat	2
				X Hemi	2
Helmet 5, Ambient .....	.....	X	.....	X Curb	1
Helmet 6, Low Temperature .....	.....	.....	.....	X Curb	1
Helmet 7, High Temperature .....	.....	.....	.....	X Curb	1
Helmet 8, Water Immersion .....	.....	.....	.....	X Curb	1

§ 1203.14 Peripheral vision test.

Position the helmet on a reference headform in accordance with the HPI and place a 5-kg (11-lb) preload ballast on top of the helmet to set the comfort or fit padding. (NOTE: Peripheral vision clearance may be determined when the helmet is positioned for marking the test lines.) Peripheral vision is measured horizontally from each side of the midsagittal plane around the point K (see Figure 6 of this part). Point K is located on the front surface of the reference headform at the intersection of the basic and midsagittal planes. The vision shall not be obstructed within 105 degrees from point K on each side of the midsagittal plane.

§ 1203.15 Positional stability test (roll-off resistance).

(a) Test equipment.

(1) Headforms. The test headforms shall comply with the dimensions of

the full chin ISO reference headforms sizes A, E, J, M, and O.

(2) Test fixture. The headform shall be secured in a test fixture with the headform's vertical axis pointing downward and 45 degrees to the direction of gravity (see Figure 7 of this part). The test fixture shall permit rotation of the headform about its vertical axis and include means to lock the headform in the face up and face down positions.

(3) Dynamic impact apparatus. A dynamic impact apparatus shall be used to apply a shock load to a helmet secured to the test headform. The dynamic impact apparatus shall allow a 4-kg (8.8-lb) drop weight to slide in a guided free fall to impact a rigid stop anvil (see Figure 7 of this part). The entire mass of the dynamic impact assembly, including the drop weight, shall be no more than 5 kg (11 lb).

(4) Strap or cable. A hook and flexible strap or cable shall be used to connect the dynamic impact apparatus to the