

Standard Specification for Headforms¹

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INTRODUCTION

This specification identifies the headforms used for testing protective headgear in individual ASTM International test methods and performance standards (standard specifications). This specification was closely based on the ISO DIS 6220 that is no longer available (having been replaced by EN 960). It is not possible for ASTM International protective headgear standards to reference EN 960 because this standard makes no provisions for ASTM International impact headforms.

1. Scope

1.1 This standard specifies the materials, sizing, and manufacturing details of test headforms for use in the testing of protective headgear. Details of the exterior dimension of the headforms are included.

2. Referenced Documents

2.1 ASTM Standards:

B 92/B 92M Specification for Unalloyed Magnesium Ingot and Stick for Remelting²

2.2 Other Standards:

EN 960 Headforms for Use in the Testing of Protective Helmets

3. Terminology

3.1 Definitions:

3.1.1 *basic plane, n*—an anatomical plane that includes the superior rim of the external auditory meatuses (upper edge of the external openings of the ear) and the inferior margin of the orbit (the lowest point of the floor of the eye socket) (see Figs. 1 and 2).

3.1.2 *coronal plane, n*—an anatomical plane perpendicular to both the basic and midsagittal planes and passing through the superior rims of the right and left external auditory meatuses. The transverse plane corresponds to the coronal plane (see Figs. 1 and 2).

3.1.3 *impact headforms, n*—headforms used for impact testing of protective headgear. Impact headforms shall conform to the external dimension defined in this specification. These headforms shall meet the material, dimensions, mass, and center of gravity requirements of this specification. These

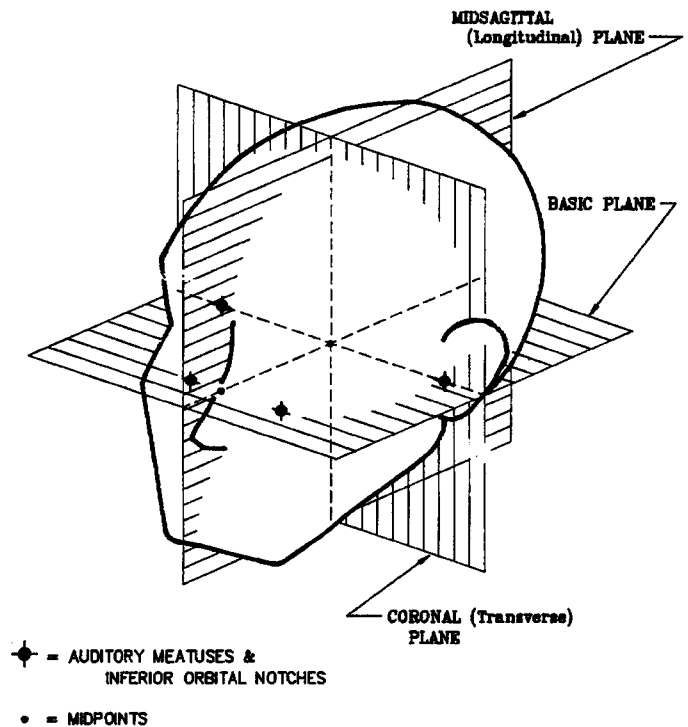


FIG. 1 Anatomical Planes

headforms shall include surface markings corresponding to the basic, coronal, midsagittal, and reference planes.

3.1.4 *midsagittal plane, n*—an anatomical plane perpendicular to the basic plane and containing the midpoint of the line connecting the notches of the right and left inferior orbital ridges and the midpoint of the line connecting the superior rims of the right and left external auditory meatuses (see Figs. 1 and 2).

3.1.5 *other (reference) headforms, n*—headforms used for other testing, other than impact, of protective headgear. They shall conform to the external dimension requirements of each

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² *Annual Book of ASTM Standards*, Vol 02.02.