

700 MATERIAL DETAILS

Materials shall conform to the stated requirements and/or the requirements of the referenced specifications including modifications as noted.

Copies of all Supplemental Specifications referenced in this section are on file with the City of Columbus Transportation Division.

746 - REBOUNDABLE TRAFFIC POST MATERIAL

746.01 Tensile Strength. The post shall have a minimum tensile strength at yield of 2,800 pounds per square inch (*19 MPa*). The tensile stress shall be determined in accordance with "Standard Method of Test for Tensile Properties of Plastic," ASTM Designation D 638 (test specimen Type I). The rate of jaw separation shall be 2 inches (*50 mm*) per minute.

746.02 Temperature Resistance.

746.021 Elevated Condition. The flexible post assembly shall be conditioned a minimum of 2 hours at $130\pm 3^{\circ}$ F ($54^{\circ} \pm 1^{\circ}$ C). The unit shall then be held in a vertical position on a solid surface, as it would be in field use, and the post member bent 90° such that the post end touches the floor within 10° of upright position within 30 seconds. The bend test shall be repeated 3 times in quick succession, completing the test within 5 minutes of post removal from the conditioned temperature.

746.022 Reduced Temperature. The flexible post assembly shall meet the requirement of 721.021 when conditioned at $-30\pm 3^{\circ}$ F ($-34^{\circ} \pm 1^{\circ}$ C) for 2 hours. Utilizing this conditioning procedure, impact the marker on concrete pavement, slapping its surface flush. Repeat 5 times within a 2 minute period.

746.03 Impact Resistance. The post shall be installed in accordance with the manufacturers instructions. The flexible post assembly shall be capable of withstanding a minimum of 10 impacts at a speed of 50 m.p.h. (*80 k.m.p.h.*) into the traffic face of the post.

746.04 Design. The flexible post assembly shall incorporate a round vertical post, a post to base attachment assembly, and a low profile base. The post to base attachment assembly shall be designed so as to make assembly and/or post replacement quick and easy. Posts shall have a uniform diameter, top to bottom.

Minimum post diameter shall be 2 1/4 inches (56 mm) and the maximum diameter shall be 3 inches (76 mm).

Post height shall be 36 inches (0.9 m), unless otherwise specified.

746.05 Color. The color of the post shall be yellow, white or orange as dictated by appropriate section of the Ohio Manual of Uniform Control Devices guidelines for particular application..

746.06 Reflective Strips. Each post shall have two 6 inches (152 mm) high Type G reflective strips of the appropriate color to meet the requirements of the OMUTCD. One strip shall be as close to the top of the post as possible. There shall be a 6 inches (152 mm) gap and then the second strip.

White posts shall have silver white strips; yellow posts shall have yellow strips; and orange posts will have white or yellow strips as specified in the plans.

746.07 Workmanship. The post shall exhibit good workmanship and shall be free of burns, discoloration, contamination and other objectionable marks or defects which affect appearance or serviceability.