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Standard Specification for Flexible Transition Couplings for Underground Piping Systems¹

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¹ These specifications are under the jurisdiction of ASTM Committee C-24 on Building Seals and Sealants and are the direct responsibility of Subcommittee C24.75 on Gaskets and Couplings for Plumbing and Sewer Piping.

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1. Scope

1.1 These specifications describe the properties of devices or assemblies suitable for use as flexible transition couplings, hereinafter referred to as couplings, for underground drainage and sewer piping systems.

1.2 Couplings that may include bushings or inserts and that meet the requirements of this standard are suitable for joining plain end pipe or fittings. The pipe to be joined shall be of similar or dissimilar materials, size, or both.

1.3 The values stated in inch-pound units shall be regarded as standard.

1.4 The ASTM standards referenced herein shall be considered mandatory.

1.5 The committee with jurisdiction over this standard is not aware of another comparable standard for materials covered in this standard.

2. Referenced Documents

2.1 ASTM Standards:

C 717 Terminology of Building Seals and Sealants²

D 412 Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers—Tension³

D 471 Test Method for Rubber Property—Effect of Liquids³

D 518 Test Method for Rubber Deterioration—Surface Cracking³

D 543 Practice for Evaluating Resistance of Plastics to Chemical Reagents⁴

D 573 Test Method for Rubber—Deterioration in an Air Oven³

D 638 Test Method for Tensile Properties of Plastics⁴

D 1149 Test Method for Rubber Deterioration Surface Ozone Cracking in a Chamber³

D 2240 Test Method for Rubber Property—Durometer Hardness³

D 3045 Practice for Heat Aging of Plastics Without Load⁵

3. Terminology

3.1 *Definitions*—For definitions of terms used in this standard, see Terminology C 717.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *center stop*—an integral part of the gasket centered on its axial length intended to limit the insertion depth of the pipe to be coupled.

3.2.2 *fitting*—parts of a pipeline other than the straight pipe couplings, or valves.

3.2.3 *flexible transition couplings*—devices used to form a leakproof joint between sections of plain end pipe or fittings of the same or different materials, of the same or different size, or any combination of materials or pipe sizes.

3.2.4 *free torque*—the torque value expressed in lbf·in./Nm when the clamp is tightened four revolutions of the screw nut; while in the free state, this value does not include any breakaway effects due to staking or passage of the band ends beyond the screw heads.

3.2.5 *inserts*—a bushing or ring placed into the coupling socket to accommodate pipe materials of differing outside diameters.

² Annual Book of ASTM Standards, Vol 04.07.

³ Annual Book of ASTM Standards, Vol 09.01.

⁴ Annual Book of ASTM Standards, Vol 08.01.

⁵ Annual Book of ASTM Standards, Vol 08.02.