

**SECTION 949**  
**MISCELLANEOUS COMPONENTS FOR**  
**MANHOLES, INLETS AND OTHER STRUCTURES**

**949-1 Clay Brick and Shale Brick.**

This brick shall meet the requirements of ASTM C62, Grade MW or ASTM C32, Grade MM.

**949-2 Concrete Brick.**

Concrete brick shall meet the requirements of ASTM C55.

**949-3 Concrete Masonry Units.**

Concrete masonry units for use in manholes, inlets and similar structures shall meet the requirements of ASTM C139.

**949-4 Precast Grade Adjustment Rings.**

Precast grade adjustment rings shall meet the requirements of ASTM C478.

**949-5 Composite Rubber Adjustment Rings.**

Composite rubber adjustment rings shall meet the following minimum material requirements:

Physical Properties	Requirements	Test Method
Density, lb./ft <sup>3</sup>	65 ± 5%	ASTM D3574-05, Test A
Durometer Hardness, Molded Surfaces, Shore A	75A ± 10	ASTM D2240-05
Tensile Strength, psi	145 (minimum)	ASTM D412-06
Ultimate Elongation %	15 ± 5	ASTM D412-06
Compression Deformation %, Initial	6 ± 2	ASTM D575-91(01)
Compression Deformation %, Final	6 ± 2	ASTM D575-91(01)
Coefficient of Thermal Expansion	10x10 <sup>-5</sup> ± 5x10 <sup>-5</sup>	ASTM E831-05

**949-6 Acceptance.**

Submit to the Engineer a certification from the manufacturer stating that the bricks, concrete masonry units, precast grade adjustment rings or composite rubber adjustment rings meet the requirements of this Section. Acceptance of materials will be in accordance with Section 6.