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Specifying the LADTECH, Inc. Injection Molded Recycled High Density Polyethylene Adjusting Rings

There are several ways in which **LADTECH®** adjusting rings may be written into a job specification. Various engineering firms and municipalities have utilized the examples given below. You may use these examples as guides or item number five can be used in its entirety to firmly specify the **LADTECH, Inc.** product.

1. In lieu of round concrete rings, all castings shall be raised using round high-density polyethylene (HDPE) rings or an approved equal.
2. All adjusting rings shall be injection molded-recycled HDPE as manufactured by **LADTECH, Inc.** or approved equal and installed as per manufacture's recommendations.
3. Sanitary sewer and storm sewer manholes:
 - The city is changing from concrete adjusting rings to high-density polyethylene (HDPE) rings for all manholes.
4. The city is requiring that in lieu of concrete adjusting rings, all manholes shall utilize the round high-density polyethylene (HDPE) recycled adjusting rings.
 - The complete adjustment system utilizing the HDPE rings shall consist of the rings, sealed to the manhole structure, casting and one another by means of an approved butyl sealant.
 - The manhole adjusting rings shall be molded from high-density polyethylene as defined in ASTM Specification D-4976. The contractor shall utilize flat and sloping units to match the required slope and or grade of the structure.
5. All final grade adjustment of manhole covers and frame assemblies shall be completed utilizing injection molded high-density polyethylene (HDPE) adjustment rings as manufactured by **LADTECH, Inc.** or an approved equal.
 - 5.1 The adjustment rings shall be manufactured from polyethylene plastic as identified in ASTM Designation D-4976 (Standard Specification for Polyethylene Plastic Molding and Extrusion Materials).

- 5.2 Material properties shall be tested and qualified for usage per the ASTM Test Methods referenced in the above ASTM standard
- 5.3 The adjustment rings shall be molded from 100% recycled material.
- 5.4 The plastic rings shall be manufactured utilizing the injection molding process as defined by SPE (Society of Plastic Engineers).
- 5.5 The adjustment rings shall be tested to assure compliance with impact and loading requirements per the ASSHTO Standard Specification for Highway Bridges.
- 5.6 Installation shall be per manufacture's recommendations only
- 5.7 The annular space between the individual rings and cone basin and the rings and cover frame shall be sealed per manufacturers instruction utilized with ASTM C990 approved butyl sealant.
- 5.8 All adjustment for matching road grade shall be made utilizing a molded indexed slope ring.
- 5.9 All grade rings shall be covered by the LADTECH, Inc. warranty or one of equal terms and duration