

Background

The next time you drive over a manhole, you just might be driving over recycled plastic. One Minnesota company has developed a molded plastic manhole adjusting ring made of 100% recycled plastic that competes with non-recycled concrete rings. The rings are used to raise manhole covers up to street level after road surfacing. As many as 50 recycled milk jugs and detergent bottles are used to make a single 27-inch plastic sewer ring that can last up to three times as long as a concrete sewer ring.

Performance

Recycled plastic rings have been tested for impact resistance and compressive strength, as well as examined for their effects related to temperature changes. They were found to perform similarly as concrete.

In many ways, the recycled plastic rings outperform traditional concrete rings. The recycled plastic rings weigh just over five pounds, while conventional concrete rings weigh about 85 pounds. The plastic rings can be easily handled by one person without the need for heavy lifting equipment, reducing the time and cost needed to install the rings. In addition, the light-weight plastic rings lower the risk of employee injury associated with lifting heavy concrete rings.

Recycled plastic rings are a longer-lasting alternative to concrete, since they are not prone to crack or break and do not corrode when exposed to salt. Maintenance schedules for city, county, and state road repairs vary widely; some overlay roads every three years while others may wait up to 15 years. No matter when maintenance is performed, more often than not, the concrete adjusting rings need replacing. Although the actual life cycle of the plastic rings has not been determined, the manufacturer provides a 15-year warranty. This is in addition to their normal "no charge" replacement for any rings found broken prior to installation.

Recognizing the advanced quality of this product, in 1996 the Minnesota Department of Transportation (Mn/DOT) approved these plastic rings for statewide use. Refer to *Appendix F* for Mn/DOT's technical memo on plastic adjusting rings.



VEHICLES AND ROAD MAINTENANCE Sewer Rings Environmental and Health Issues



RECYCLED CONTENT: BUY PLASTIC SEWER ADJUSTING RINGS MADE FROM 100% RECYCLED HIGH-DENSITY POLYETHYLENE (HDPE) PLASTIC AND KEEP WASTE PLASTIC OUT OF LANDFILLS AND INCINERATORS.



PREVENTS WASTE: CONCRETE RINGS CAN BREAK DURING INSTALLATION AND ARE SUBJECT TO CORROSION. PLASTIC SEWER RINGS TYPICALLY DO NOT CRACK OR CORRODE. BUY PLASTIC SEWER ADJUSTING RINGS TO INCREASE THE SERVICE LIFE OF THE PRODUCT.