

# Application Profile

**Project:** Polyurea Spray Electrostatic Application Work  
Polyaspartic Ester Based & Fast-set Plural Component

**Polyurea Application:** InstaCote™, Inc., Erie, Michigan  
Visuron Technologies, Inc., Bay City, Michigan  
Dietzel Painting, Guilford, Michigan

**Polyurea System Applied:** Primeaux Associates LLC Developed

**Substrate / Area:** Various Steel Substrates / Parts

**Date:** March 2005, January 2007

**Polyurea** spray elastomer systems have been in use for a variety of applied protective film applications. Recent developments have allowed the use of electrostatic processing for this technology. The electrostatic process delivers product very effectively with high transfer efficiency, thereby minimizing overspray and product loss. The **Polyurea** technology's short cure time allows for quick turn-around installations.



The unique fast-set aliphatic and aromatic products are delivered through commercially available proportioners feeding commercial and proprietary spray guns. The proprietary formulated components are electrically charged with specialized generators designed specifically for plural component use. Initial gel times can be adjusted from five seconds to several minutes. Dry to touch times are less than a minute for the fast-set systems and are proportionate for the slower systems.

Using standard plural component proportioning equipment, a GRACO® Mix Manifold block was attached to the end of the spray hose. This allowed for static mixing of the plural components, as well as solvent flush. A GRACO PRO™ Xs4 AA manual electrostatic air-assisted spray gun ( 3000 psi, 21 MPa) was then used to charge the specially formulated **polyurea** system. Alternatively, a specially modified GX-7 spray gun was used to charge the fast-set **polyurea** systems.

Excellent wrap and film deposition was noted in both cases with reduced overspray / loss.



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