

# Application Profile

- Project:** Aalborg Zoo, Aalborg, Denmark  
Hercules™ Soft Flooring and Wall System
- Polyurea Applicator:** Fast Set Plural Coatings, Hirtshals, Denmark  
Inspection / Project Monitoring by Primeaux Associates LLC
- Polyurea System Applied:** PV-380 Aromatic Polyurea Spray,  
PolyVers International, LLC, Houston, Texas
- Substrate / Area:** Concrete Floor and Walls, approx 360 m<sup>2</sup> (3,875 ft<sup>2</sup>)
- Date:** September, 2007

The Aalborg Zoo in Denmark is in process of renovating several of the exhibit and habitat areas to improve life for the animals. One area that houses the group of African Elephants was in need of serious improvements. Fast Set Coatings proposed the use of the new Hercules system for this area, as they had previously performed some polyurea coating work for the Sea Lion, Tapar and Flamingo areas. The Hercules system had been used at the Vienna Zoo in Austria for the Rhino area with excellent results.



This system would provide for comfortable and durable display and feeding areas for the elephants, as well as allowing for easy cleaning of the seamless system when the elephants are placed outdoors. It feels better for the elephants.

Prior to installation of the system, the concrete stall areas were cleaned / prepared as per SSPC-SP 13. This involved the use of high pressure water cleaning to remove existing paint and debris, providing for a CSP 3 to CSP 4 profile.

After preparation, the walls were primed with an epoxy system incorporating sand to fill voids and bugholes. The sand also provided a textured surface for improved adhesion of the polyurea system. An epoxy system was then used to adhere the 1.5 cm (0.6-inch) ground rubber mats to the floor area for the soft feel. The PV-380 system was then applied at about 2.0 mm (80 mils) to the walls. Approximately 4.0 mm (160 mils) of the PV-380 aromatic polyurea system was applied to the installed rubber mats. This provided for the continuous elastomer membrane with excellent adhesion to the rubber mats. 24 hours after installation of the system, the elephants were placed in the cells for feeding with no damage to the system.

The PV-380 system was applied using a GUSMER® H-20/35 Pro unit fitted with a GlasCraft® Probler® P2 spray gun. An "02" chamber was used with an "01" insert tip. This provided controlled output and spray pattern under 138 bar (2000 psi) processing pressure.



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