



In cooperation with 
and 

Long-Term Protection with Waterborne Polyurethane Coatings

1K PUR Single Layer Coats for LPG Cylinders

Long-Term Protection of LPG cylinders with Waterborne Polyurethane Coatings

Vitogaz Bulgaria EAD is a leading company for the import and distribution of liquefied petroleum gas (LPG) in the Bulgarian market. Until recently solventborne coatings have been used in the gas filling plant of Vitogaz. Since 2008 Vitogaz is now using an air-drying waterborne 1K PUR coating system for the protection of LPG cylinders. This modern coating system is supplied by one of the most innovative Bulgarian coatings producers, Megachim AD. Due to the membership of Bulgaria in the EU Megachim started early with the development of waterborne industrial coating systems. Bayer MaterialScience set the stage for this modern technology due to its expertise and wide product range of waterborne Polyurethane coating raw materials.

Besides the EU VOC legislation, fire protection issues were the key argument for Vitogaz to introduce waterborne systems into the coating process for their LPG cylinders. The XPERT coating system of Megachim, which is based on a oxidatively drying Bayhydrol®-Polyurethane Dispersion* complied perfectly with the lacquer and coating requirements such as:

- fast drying
- higher gloss compared to the solventborne coatings used before
- sufficient durability and weather (incl. UV & acid rain) resistance
- high hardness as well as flexibility
- good abrasion & impact resistance as well as mechanical strength
- excellent adhesion resistance and corrosion protection
- good water & chemical resistance

Substrate:

Carbon steel

Surface preparation:

Brush cleaning

Coating type:

Waterborne 1K single layer coat

Brand name: XPERT**Supplier:** Megachim, Russe – Bulgaria**Application:**

Spraying

Film Thickness:

Approx 40 µm

Drying Conditions:

60 min at 80°C + 6 hours RT

Coating Properties:

Gloss: ~ 70 (60°Gardner)



*Bayhydrol® UH is registered trademark of Bayer AG

Contacts:**Bayer MaterialScience AG**

Coatings, Adhesives & Specialties
D- 51368 Leverkusen
Germany
www.bayercoatings.com

**Megachim AD**

бул. Липник 123
7013 Russe,
Bulgaria

**Vitogaz Bulgaria EAD**

117, Zaychar Str. Floor 3,
1309 Sofia,
Bulgaria



Bayer MaterialScience AG
D-51368 Leverkusen
Germany

www.bayercoatings.com
cas@bayermaterialscience.com

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