

## Flat roof refurbishment using 100% solid Hertec 1180 Polyurea



Another milestone in polyurea technology is the refurbishment project of an existing roof made up of different substrates. The first substrate is the metal seam roof, then the drainage collection made of Inox steel and finally a flat roof covered with welded PVC sheets. The professional challenge to coat this roof with the right polyurea system was high, both from a technical and a sustainable aspect. Hercules GmbH, from Villach / Austria, established the system standards and presented their coating solution to the client and the company responsible for the application. Several companies submitted bids to complete the work, but in the end, it was the system and the system design from Hercules that was successful. Hercules's long experience in polyurea technology was also an important factor in the decision for Strikecons, the company awarding the contract.

The contractor, from Bucharest, responsible for the professional polyurea/system application, is a certified and trained Polyurea specialist company. Strikecons has been working with polyurea technology for many years and is also one of the leading companies in Bulgaria in the area of manual application of various liquid coating systems such as polyaspartics, urethanes and also epoxy. The application of different polyurethane insulating foams is another area of expertise for the company. Strikecons employs 2 high-pressure spray units made by Graco and Wiwa and is able to work on larger areas with the FSR 2000 application robot made by the company Hertec solutions. Therefore, the right partner for these kinds of projects.

In the case of the 3 different surfaces, the surface prep, especially the substrate pre-treatment and the selected primer





types, are also of great importance. For the metal seam roof a special 1-C primer was used and for the Innox steel section, a multilayer coating construction was used to enable the necessary adhesion to the surface. It isn't easy to coat Innox steel with good adhesive properties to the polyurea, without the necessary know how. The PVC flat roof uses a 2-K melt primer, which must guarantee that the sprayed polyurea system adheres so tightly that a break between PVC and polyurea is no longer possible. This requirement profile was also met with a 2-component primer from Hercules.

It is, and was, important to choose a polyurea system for these different roof substrates and geometries / surfaces, that will not allow shrinkage, has a slightly longer reaction time and has good elongation properties. A system formulation of Primeaux Associates, Hertec 1180 was chosen for this application. Furthermore, a fire resistance class B-s2, d0 and above was required. We were able to achieve this with another special superstructure.

The project will be sprayed in 3 parts and will be completed in mid / end 2018. By the end of 2017, 8,000 m<sup>2</sup> had been

successfully completed. We will keep you up-to-date on the additional coating stages in coming issues, until the area of over 30,000 m<sup>2</sup> is fully complete.

#### **Project information**

##### **Exclusive contractor and applicator:**

Strikecons ([www.sistemepoliuretanic.ro](http://www.sistemepoliuretanic.ro))

##### **Material and system supplier:**

Hercules GMBH., System Hertec 1180([www.hercules.at](http://www.hercules.at))

##### **System formulation:**

Dudley Primeaux II (Primeaux Associates)

Supervising after SSPC/ technical support: A

CT (Advanced Coating Technology), Primeaux associates

##### **Machinery:**

Graco E-XP 2 Elite, Wiwa Duomix Plural 435

##### **Spray guns:**

Probler P2, Pentech MG + BD gun

##### **Application robot:**

FSR 2000.01 (Hertec solutions, [hertec@gmx.at](mailto:hertec@gmx.at))

##### **Material drum mixer:**

Hertec Bechermixer/Hertec cup mixer (Hertec Solutions)

