

Rugged even in wet and cold conditions

Christian Rieser, Product Application Engineer

Bucher-Guyer AG's compact sweepers clean roads with the use of rotating brushes and continuously vacuum up the dirt. Dust control skirts attached to the vehicle undercarriage catch debris kicked up by the brushes so that the suction unit can capture the dirt. Since the dust skirts drag along the ground and are employed in wet weather, the strains placed on them call for a material with excellent abrasion and hydrolysis resistance – a combination of properties that is not easy to find. Angst+Pfister offers the perfect solution in the form of high-grade polyester urethane.



CityCat 2020

Bucher-Guyer AG (based in Niederweningen, Switzerland) manufactures, among other things, sweepers and winter maintenance equipment that are used worldwide to remove dirt and snow from roads and squares in towns and cities. In Europe, the company is the market leader in the field of sweepers and winter maintenance equipment.

Efficient vacuuming

Bucher-Guyer's CityCat 5000 and CityCat 2020 sweepers are equipped with brushes that suck dirt directly into the vehicle's debris hopper. Optimal air flow routing helps both models achieve excellent suction performance. Bucher-Guyer AG's compact CityCat 2020

sweeper with articulated steering has blazed new trails in terms of ergonomics, user-friendliness, handling and design.

Difficult challenge of choosing the right material

The undercarriage of the CityCat 5000 and CityCat 2020 sweepers is fitted with dust control skirts in close proximity to the suction unit; the dust skirts catch the debris kicked up in the suction area. It is imperative that the bottom edges of the skirts move along as close to the ground as possible and adjust flexibly to ground unevenness. Since the dust

skirts are in constant contact with the ground, the selected material used to make them has to be very robust and must exhibit excellent impact resilience as well as very good resistance to wear and abrasion. The required material properties have to remain stable in temperatures as low as -10°C . In addition, the material has to be highly resistant to hydrolysis for deployment in wet weather.

The solution: APSOplast® PUR D44

Close collaboration between Bucher-Guyer AG's engineers and Angst+Pfister's engineering plastics technology specialists brought forth a solution that measured up to the stringent requirements: the CityCat 5000 and CityCat 2020 sweepers are fitted with dust skirts made from the polyester urethane APSOplast® PUR D44. Angst+Pfister manufactures the dust skirts and delivers them ready for installation, mostly as cast moldings.

Polyester urethanes exhibit rubber-like elastic behavior and are very adaptable. Compared to common types of rubber, they are considerably more resilient, tough, abrasion- and tear-resistant, and weatherproof. Other advantages are impact insensitivity, long service life and constant elastic behavior over a wide temperature range from -10°C to $+80^{\circ}\text{C}$.

Optimal combination of properties

Soft elastic auburn-colored APSOplast® PUR D44 is a proven high-grade polyester urethane with high structural integrity, abrasion resistance, tear propagation resistance and enhanced hydrolysis resistance. It thus embodies an ideal combination of properties that is essential for the dust skirts on Bucher-Guyer AG's compact sweepers.

Versatile PUR range

Angst+Pfister has a versatile range of high-grade PUR types in various Shore hardnesses. Our experienced engineering plastics technology specialists can find the right material for any application. The PUR materials APSOplast® PUR D44 and APSOplast® PUR D15 (VULKOLLAN®) are available from stock in the form of semifinished plates, rods and tubes. In addition, Angst+Pfister can supply cast or water-jet-cut parts in a variety of polyester and polyether urethane types. Angst+Pfister can also cut shaped parts according to customer specifications from a variety of PUR materials.

Our plastics technology specialists are happy to support you in developing a design-engineering solution.

Your contact:
Christian Rieser
Angst+Pfister AG, 8052 Zürich, Switzerland
Telephone: +41 (0)44 306 63 62
E-mail: c.rieser@angst-pfister.com



Polyester urethane APSOplast® PUR D44



The dust skirts are really put to the test...



...in rough deployment for more cleanliness

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