

Schwalbe and BASF jointly develop bicycle tube made entirely of Elastollan®

Aerothan bicycle tubes from Schwalbe set new standards in production, puncture resistance and handling

This new generation of bicycle tubes based on BASF's thermoplastic polyurethane (TPU) Elastollan® scores top marks in terms of weight, puncture resistance, handling characteristics, ease of assembly and packing size. Aerothan bicycle tubes are the result of unique developmental work between the market leader for bicycle tires and tubes in Europe and BASF's Performance Material Division.

The new bicycle tubes are designed around a specially developed material combination based on BASF's Elastollan®. The close cooperation is characterized above all by the targeted material development and tube prototype production at BASF's Lemförde Technical Center, followed by tube assembly and intensive testing at Schwalbe. As a result, the optimum mix of materials and processing has been achieved, such that the new bicycle tube not only offers good performance, but is also around 40 % lighter than the established alternatives on the market. To achieve this, all parts of the new tube, including the valve stem, are made entirely of Elastollan®.

Despite its low weight, the new tube offers cyclists a whole new level of puncture safety: the material prevents any sudden loss of air and ensures stable handling even at low tire pressure. Aerothan bicycle tubes are therefore approved for all rim brakes and so are perfectly suited to the high demands of racing bikes, mountain bikes or all-round cycling environments. Since Aerothan bicycle tubes can be changed quickly and easily without slipping or jamming, they are also easy to install in practice. This is enabled by the special mechanical properties of TPU plastic. Elastollan® is highly resistant to abrasion and wear and is therefore extremely durable, even under sustained high pressure loads. At the same time, the material is extremely flexible, elastic and heat resistant.

Another advantage of the bicycle tubes is their recyclability – they are made entirely of thermoplastic polyurethane. Like all Schwalbe tubes, Aerothan bicycle tubes can be returned to the manufacturer, easily and free of charge, via the tube recycling program. The material of the old tubes is processed and then reused as sealing or insulating material.

