

BYK-TS 3200 and BYK-TS 3201

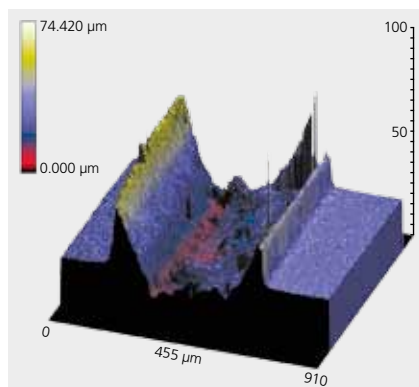
Additives for Increasing the Scratch Resistance of Polyolefin-based Surfaces and Components

In view of their excellent formability and processability, their efficiency and their general availability, polyolefins are used in numerous applications including those in the automotive industry. Their attractive range of properties has even caused them to sometimes replace other technical solutions. However, sometimes these materials do not quite achieve the full scope of performance of more elaborate solutions. There are some deficiencies, particularly where the scratch resistance of surfaces of polyolefin-based components is concerned. Nevertheless, it is possible to improve these shortcomings by using specific additives.

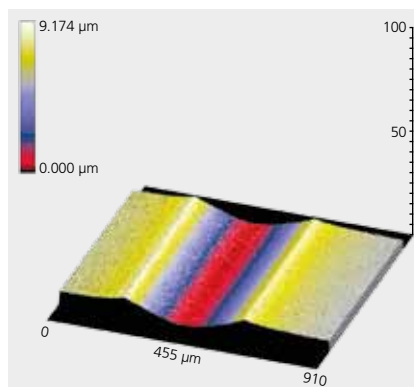
With BYK-TS 3200 and BYK-TS 3201, BYK is therefore offering two additives which significantly increase the scratch resistance of thermoplastic components by reducing the scratch depth and also the visibility of scratches. Components that have been produced using BYK-TS 3200 and BYK-TS 3201 maintain their visual quality for a long period of time.

BYK-TS 3200

Significantly Lower Scratch Depth in a Polypropylene Component



Control sample



1 % BYK-TS 3200

Force exerted to the surface (scratching): 20 N, Scratching caused using Taber® Multi-Finger Scratch Tester; measured using a 3D microscope (FRT MicroSpy® Topo DT) by BYK-Chemie GmbH, Wesel

Formulation: Homo-polypropylene with 20 % talc

Benefits

- Significant increase in the scratch resistance of polyolefin-based surfaces and components
- Odorless
- Effective at a low dosage → economical solution
- Supplied in solid form → easy to add and process

Typical Properties

BYK-TS 3200

- Block copolymer
- 100 % active substance
- Dosage 0.5–1 % based on the total formulation

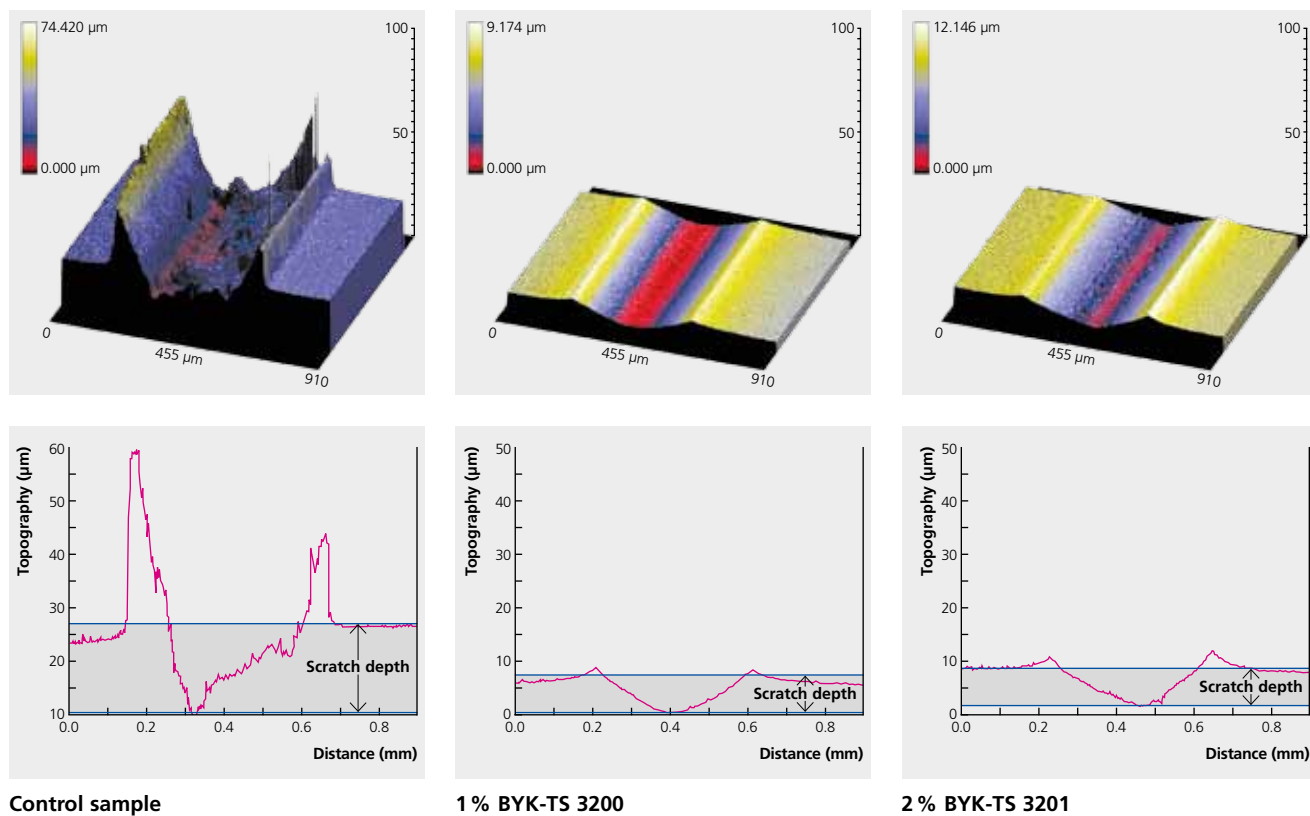
BYK-TS 3201

- Organically modified siloxane, adsorbed onto a polypropylene carrier
- 66 % active substance
- Dosage 1–3 % based on the total formulation

Typical Scratches in a Car Door – Interior Paneling



Improved Scratch Profile when using BYK-TS 3200 and BYK-TS 3201



Force exerted to the surface (scratching): 20 N, marked area: Scratch depth without accumulation
 Scratching caused using Taber® Multi-Finger Scratch Tester; measured using a 3D microscope (FRT MicroSpy® Topo DT) by BYK-Chemie GmbH, Wesel
 Formulation: Homo-polypropylene with 20 % talc

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