EKOIMPACT

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Impact modifier

specialist polymer additive increasing the impact resistance of plastics and improving its ability to withstand dynamic loads and low temperatures

Reduces internal stresses
increases the durability of corners and thin-walled components

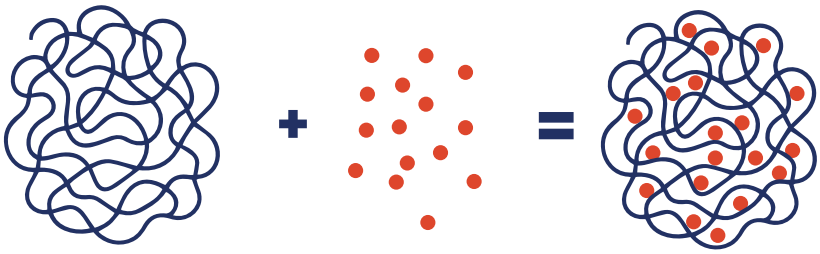
Absorbs impacts
increases the base material's resistance to cracking due to impact, dropping or assembly

Improves impact resistance
improves the resistance of plastics to cracking due to sudden and dynamic loads, such as impacts

Improves cold resistance
protects materials against cracking at low temperatures

How does EKOIMPACT work?

The modifier forms flexible zones within the polymer structure, effectively dissipating impact energy



How to determine the optimal dosing level?

1.

Determine the initial impact strength of the plastic

Carry out a test, e.g., Charpy impact test 150 179, to determine the polymer impact strength.

2.

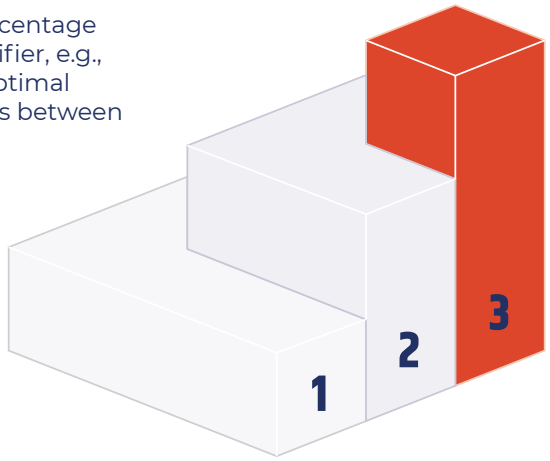
Add EKOIMPACT

Add different percentage levels of the modifier, e.g., 2 / 4 / 10 %. The optimal dosing level varies between 2 and 25%.

3.

Obtain a new level of impact resistance

Run the impact test on an improved material. Select an appropriate dosing percentage. Obtain an improved impact resistance: e.g., from 6 to 10 kN/m^2 for ABS with 10% dosing level.



Which industrial dosing method will be appropriate?

Volumetric dosing

Appropriate for lower requirements and smaller batch sizes.

Premix

If no dosing systems are used, the modifier may be mixed with the base polymer before feeding to a machine.

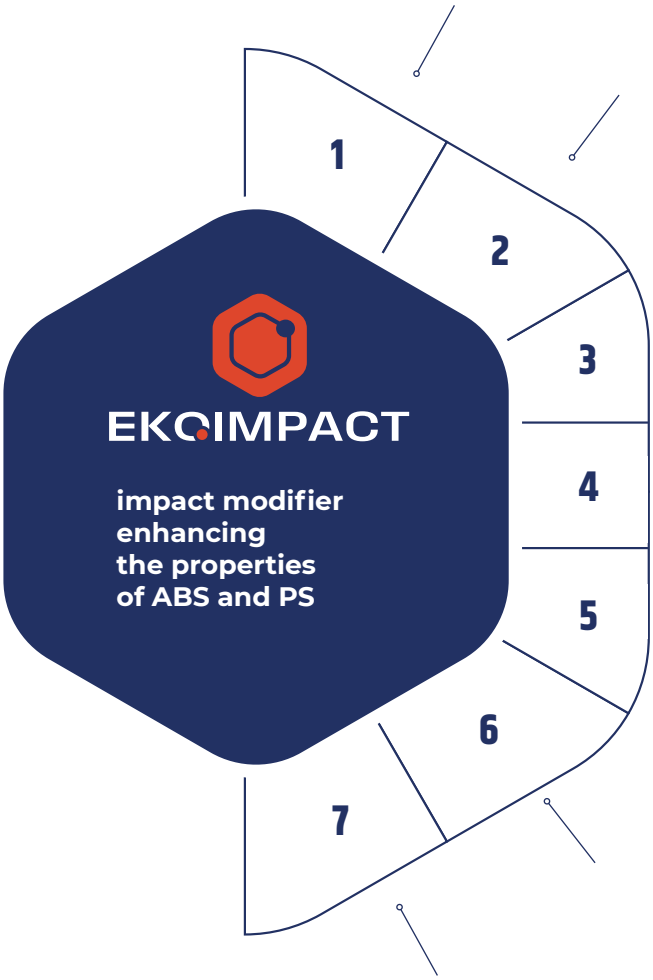
Gravimetric dosing

Ideal for large batch sizes and high quality requirements; applicable to a wide range of machines.

Technological advantages of EKOIMPACT

EKOIMPACT PS/ABS vs standard styrenic impact modifier

Accurate dosing
Accurate dosing and less material lost when dosing, as the material does not stick to the walls and is suitable for automatic dosing.



Phase compatibility
Full compatibility with ABS and PS, with no phase separation.

Dual-use
One modifier for both ABS and PS. Possibility of using cheaper variants of ABS/PS with lower base impact resistance, as the modifier compensates for the differences in parameters.

Consistent quality
Controlled parameters and composition ensure consistent quality. Improved batchto-batch stability means more stable processing conditions and fewer customer complaints.

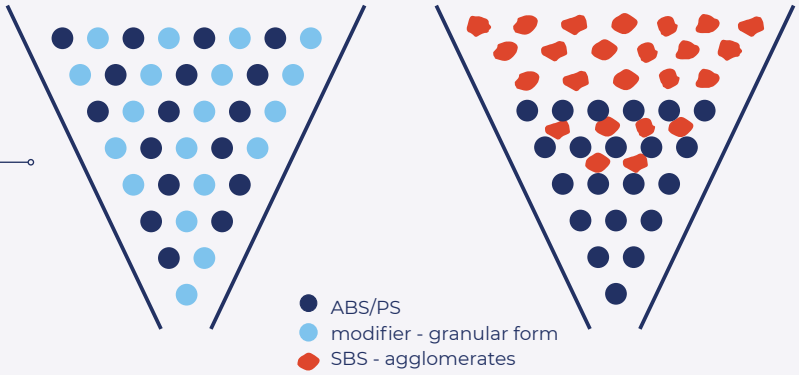
Homogenisation
Prevents agglomerates and splay issues on the processed plastics.

Compatibility with pigments and other additives
Its granular form ensures colour consistency.

Low Cost-in-Use
Reduced processing losses (dosing, waste, changeovers) and more stable material flow. An extended product service life adds value to the final product.

The granular form ensures uniform distribution and stable composition

in contrast to SBS agglomerates, which tend to fractionate during mixing and accumulate in the upper layers.

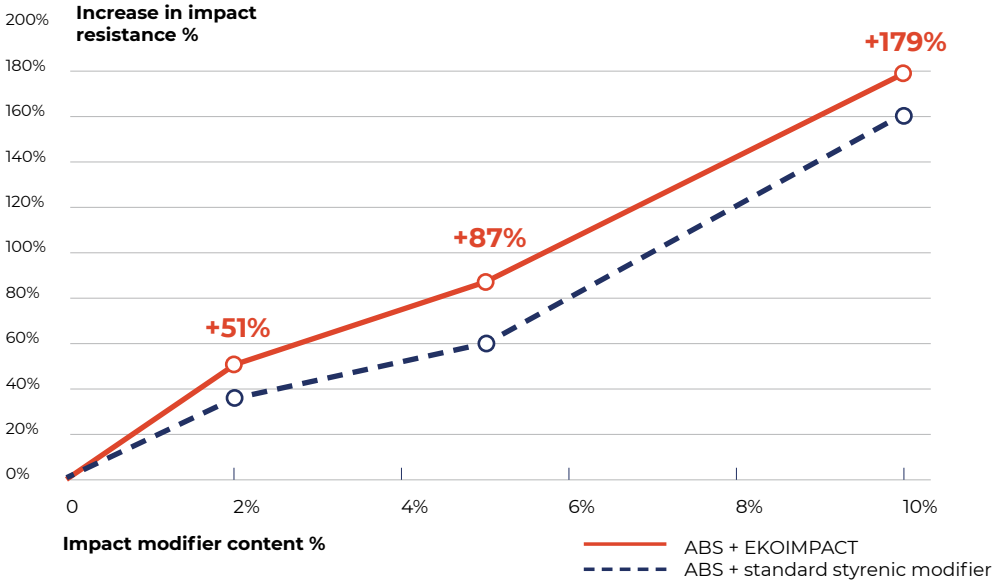


EKOIMPACT PS/ABS vs. standard styrenic modifier

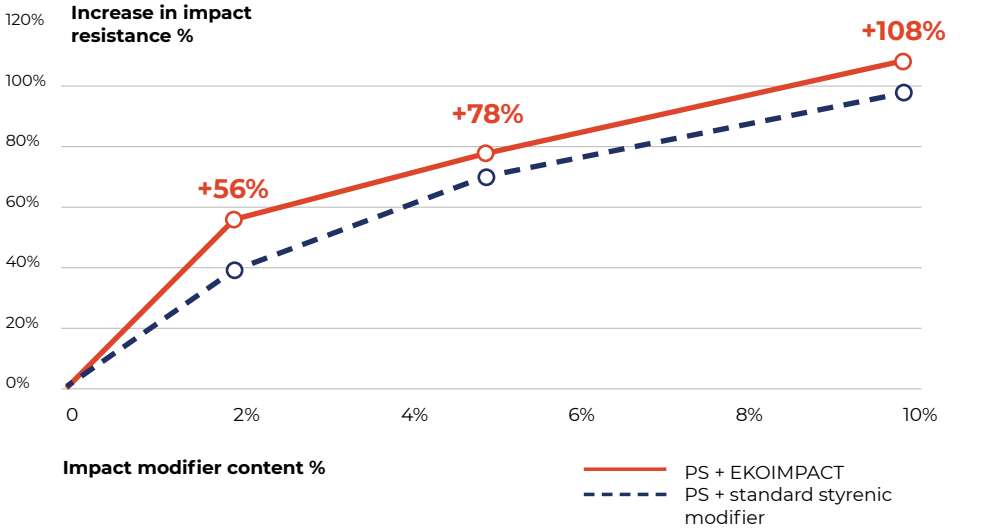
Laboratory test results for a sample material

12%

Average increase in resistance of ABS and PS as compared with a standard styrenic modifier



Increase in impact resistance for ABS



Increase in impact resistance for PS

EKOCHEM compounds

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