

THE GAME-CHANGING INDUSTRY SYSTEM SWARCOFORCE REFLEX

GLASS FILLER BEADS WITH A HIGH REFRACTIVE INDEX

With their outstanding precision and first-class quality, SWARCOFORCE REFLEX glass filler beads make a compelling case in a broad range of applications.



SWARCOFORCE REFLEX GLASS FILLER BEADS FOR PLASTICS

Glass filler beads with a high refractive index are added in the processing of plastic films and multi-wall sheets in order to enhance the required qualities. They prevent greenhouses and areas protected from the sun from overheating during the day and reduce heat loss at night. By scattering the light, glass filler beads allow for diffuse light conditions while hardly lowering transparency.

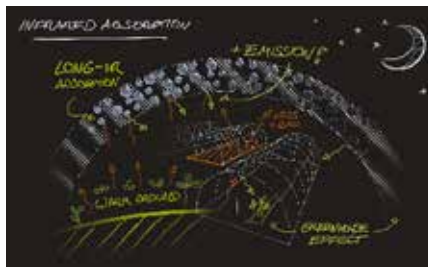


SWARCOFORCE REFLEX GLASS FILLER BEADS FOR PAINTS, VARNISHES AND COATINGS

Glass filler beads with a high refractive index are used as filling agents for paints, varnishes and coatings to utilize different physical properties of glass, such as surface improvement, scratch resistance, retroreflection or heat reflection.



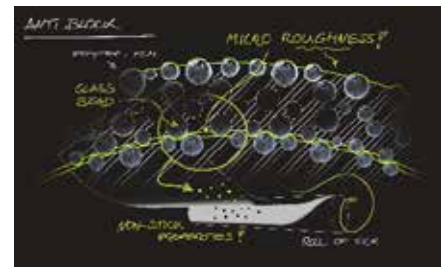
Technical potential of using SWARCOFORCE REFLEX glass filler beads with a high refractive index as filling agents for plastics, building materials, paints, varnishes and coatings:



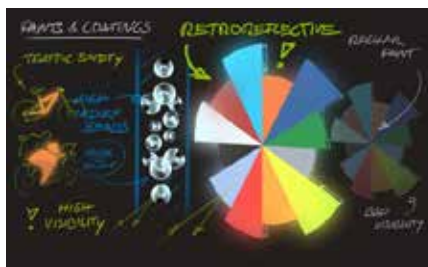
Glass filler beads absorb long-wave infrared radiation and re-emit this energy back to their environment.



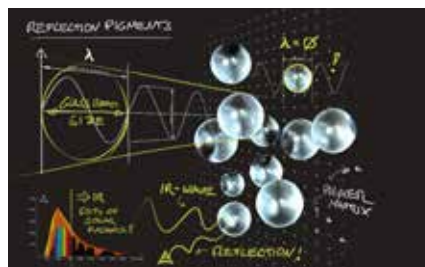
Glass filler beads absorb UV radiation. This reduces polymer degradation as well as the formation of fungi on greenhouse films.



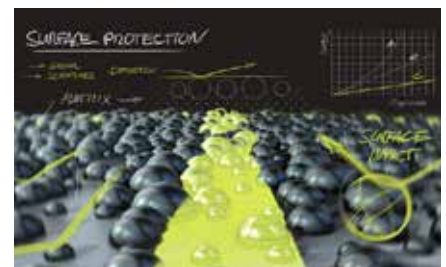
With glass filler beads, it is possible to obtain a certain micro-roughness of the film surface, and thus, prevent blocking in rolls.



A wide variety of applications benefit from the increased retroreflection of paints, varnishes and coatings achieved by using glass filler beads with a high retroreflective index.



High reflection of glass filler beads with a high retroreflective index in the NIR band allows for excellent results in heat-reflective and optical applications.



Glass filler beads increase scratch and abrasion resistance of product surfaces.

Technical Data

MATERIAL	Type	Refractive index	Specific weight	Bulk weight	Roundness
SWARCOFORCE REFLEX glass filler beads are made of barium titanate glass. Impurities are permissible only up to a max. of 0.1 percentage by weight.	REFLEX19	~ 1.91	~ 4.5 g/cm ³	~ 2.5 kg/l	> 80%
	REFLEX21	~ 2.15	~ 4.6 g/cm ³	~ 2.5 kg/l	> 80%

SIEVINGS AND APPLICATIONS

Many different grain sizes are available, and the production process ensures narrow tolerance ranges. Further customized particle-size distributions are possible upon request.



SILANIZATION

SWARCOFORCE REFLEX glass filler beads can be used with a very wide variety of coatings, which defines the interaction between the glass and the matrix material used (e.g. the adhesion between glass and plastic).

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