



Paint



Paper barrier coatings



Textile/leather coatings

SharkDispersions™

Are the trade names for Shark Solutions water based dispersions made of 100 % post-consumer or post-industrial recycled Polyvinyl Butyral in various grades.

SharkDispersions™ are homogeneous water based dispersions, meaning that the dispersing water based phase and the disperse PVB-based phase form extended uniform blended structures with a "particle size" in the colloidal range (<50 µm). This means that the dispersions show the Tyndall-effect (fogging effect if light passes through the media).

SharkDispersions™ are stable aqueous dispersions of (plasticized) PVB. (Only slight precipitation occurs when stored under normal conditions (+1 to 28 °C, which is the optimal temperature storage range)). However damages may occur if exposed to temperatures below 0 °C, and the product should be inspected before use. The product must be protected from frost to avoid damages.

Our dispersions can be used as a main component / binder or as a performance enhancing additive in water-borne coatings applications.

The products are easily applied by brush, dip, roller, spray, spreader, foam or as an aerosol.

PVB in a water-based dispersion has adhesive properties if the materials to be glued are porous or diffusion open.

The dispersions are drying and forming a homogeneous film at normal room

temperature without addition of extra film forming additives. They are cross-linkable, and they can be mixed with a variety of emulsions and water dispersible resins due to excellent compatibility.

SharkDispersions™ are available in 4 grades:

Product name	Input material source	Specifications
SharkDispersionMW™	Post-consumer	Particle size d(0,5): Approx. 0,160 µm Clear hazy film
SharkDispersionLG™	Post-consumer	Particle size d(0,5): < 0,300 µm Clear / greyish hazy film
SharkDispersionSX™	Post-consumer	Particle size d(0,5): Approx. 0,300 µm Clear hazy film
SharkDispersionC4™	Post-industrial, Coloured trims	Particle size d(0,5): Approx. 0,160 µm Greyish / bluish film
SharkDispersionC5™	Post-industrial, Clear trims	Particle size d(0,5): < 0,140 µm Clear transparent film

Delivery form:

- Aqueous dispersions of plasticized Polyvinyl Butyral (PVB) with milky white to greyish appearance
- Total Solids content: 45-48 % (w/w)





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- pH value: 9-10
- Density: 1,03 kg/ltr.
- Brookfield viscosity < 600 cPs (=mPas), RVT No. 2 spindle, 50 rpm @ 20 °C
- Free of Phthalate based plasticizers

Protective biocide (0,1 % Acticide MBS) is added to our dispersions.

Applications

SharkDispersions™ are recommended for a wide variety of applications as outlined below.



Water borne paints, coatings and Inks

SharkDispersions™ are very suitable for applications as a binder in various types of paints and inks.

Our dispersions are primarily recommended as a product enhancing additive for coatings, when there is a demand for improving properties like: Toughness, flexibility and elongation combined with a very resistant and soft, but strong film with excellent exterior durability without blocking problems.

Generally as a good starting point it is recommended to replace 10–20 % of current binder – solids on solids.

Any mix ratio may however be chosen, depending on the specific balance of desired properties of the end product. In most cases it should be possible to save part of or all of

the film forming agents (coalescing agents and co-solvents), when SharkDispersions™ are used as a co-binder, since they already contain some plasticizers.

The PVB dispersions can also be used / formulated as the sole binder for primers on gypsum board, fabrics plus concrete and masonry interior and exterior.

Temporary /Peelable /Strippable Coatings

SharkDispersions™ can be formulated as a ready to use temporary or peelable coating on numerous surfaces such as metal, coil coated surfaces, glass, glass-fibers, polyesters or other plastics. The temporary coating is removed e.g. when goods are ready for painting or assembly, thus retaining a clean surface.

Paper Coating

By using the (diluted) dispersions as a coating, the durability and abrasion resistance properties of the finished product are increased. SharkDispersions™ may, for example, be used in packaging materials, wallpaper and window shades to produce washable, greaseproof coatings.

Textiles

Again the dispersions are suitable to be used for improving the durability and abrasion resistance of textiles. The dispersions may also strengthen textiles and assist in retaining colours. Applied correctly, the dispersions give the following materials an optimal finish - cotton, rayon, nylon, curtain and upholstery materials, canvas and awnings. When used in formulations, i.e. a thicker compound, the dispersions are highly recommended for utilization as carpet backing binder or as a fixing agent.

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