We create chemistry

Acronal® DS 2159

Chemical Nature **An aqueous acrylate copolymer dispersion for use in construction adhesives**

Properties

Typical Properties	Solids content	%	49.0 - 51.0
	pH		8.0 - 9.0
	Viscosity at 23 °C (Brookfield RV, Spindle #4, at 50 rpm)	cps	600 – 1800
Other properties of the dispersion	Density	lbs/gal	ca. 8.67
	Dispersion type		anionic
	Freeze/thaw stability	protect from freezing	

Applications

Fields of application

Acronal DS 2159 may be used as a binder for filled construction adhesives, such as AFG-01 plywood-lumber subfloor formulations where superior moisture resistance is required.

Processing

Subfloor adhesives are produced from Acronal DS 2159 by conventional formulating techniques. In order to ensure that the viscosity of the made-up adhesive does not undergo any change during long storage periods, the pigments and extenders must be dispersed with adequate amounts of wetting and dispersing agents; e.g., Dispex® AA 4135, together with polyphosphates.

Various thickeners may be added to regulate the viscosity and flow, as well as to improve gunnability. Polyacrylates, cellulose ethers, polyurethane thickeners, either by themselves or in combination, may be used for this purpose. Inorganic thickeners, e.g., montmorillonites and finely divided silica, are also suitable. Laboratory testing for compatibility of ingredients and long-term storage/viscosity stability should be carried out.

In common with all other fine particle size dispersions, Acronal DS 2159 may foam when agitated. Defoamers in proportions recommended by the manufacturer (usually of the order of 0.05 - 0.5%) may be added. Its efficiency should be checked by prior experiment.

Small amounts of coalescents may be included in formulations in order to ensure film formation at temperatures below 57 °F. Suitable solvents for this purpose are glycol ethers and their acetates, mineral spirit containing aromatics, and Texanol®, either individually or mixed together. In general, the maximum proportion that would suffice for coalescents is 3%, expressed in terms of the total made-up adhesive. Solvents that are freely miscible with water, e.g., lower alcohols or glycols, are unsuitable coalescents, but improve the frost stability of the formulation and promote adhesion to frozen lumber substrates. Water-miscible highboilers, e.g., propylene glycol and diethylene glycol monobutyl ether, also lengthen the wet edge time and increase sensitivity to water.

Solvents and thickeners in the concentrated form should not be added directly to the dispersion because of the risk of local coagulation. It is preferable to mix them with the pigment paste or dilute them with water before they are incorporated in the adhesive.

Preservatives must be added as a safeguard against microorganisms if the formulated adhesives are to be stored for long periods. Their compatibility and efficiency should be checked by prior experimentation. The proportions to be added depend on the manufacturer's instructions and the ambient storage conditions.

Manufacturers must perform their own trials in developing water-based adhesives from Acronal DS 2159 because experiments on our part cannot embrace the great variety of factors that may exert an influence on production and application; e.g., the mutual compatibility of the constituents, the mechanisms that occur during mixing and the adhesion to various substrates.

Safety

General

The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State and Local health and safety regulations, thorough ventilation of the workplace, good skin care and wearing of protective goggles.

Safety Data Sheet

All safety information is provided in the Safety Data Sheet for Acronal DS 2159.

Storage

Please refer to the "Handling and Storage of Polymer Dispersions" brochure.

Important

WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, THEY ARE PROVIDED FOR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, BASF RECOMMENDS THAT THE READER MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR A PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESCRIPTIONS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF BASF'S TERMS AND CONDITIONS OF SALE. FURTHER, THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED
BY BASF HEREUNDER ARE GIVEN GRATIS AND BASF ASSUMES NO OBLIGATION OR LIABILITY FOR THE DESCRIPTIONS, DESIGNS, DATA OR INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT THE READER'S RISK.

BASF Corporation is fully committed to the Responsible Care® initiative in the USA, Canada, and Mexico.
For more information on Responsible Care® go to:
U.S.: www.basf.us/responsiblecare_usa
Canada: www.basf.us/responsiblecare_canada
México: www.basf.us/responsiblecare_mexico

BASF Corporation
Dispersions and Resins
11501 Steele Creek Road
Charlotte, North Carolina 28273
Phone: (800) 251 – 0612
Email: CustCare-Charlotte@basf.com
www.basf.us/dpsolutions