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UZACRYL[®] M20

® – Registered trademark of “VEK” LLC

Uzacryl[®] M20 became a universal basis for reception of fine coverings under operational characteristics on a wood, concrete, brick and metal.

Chemical properties

Free aqueous and an average viscous dispersion of a copolymer of acrylic ester and styrene

Features

- High pigment binding capacity
- Compatibility with other binding means (silicate, silicone, etc.)
- Good getting ability in the porous bases
- Good paint stability
- Good water resistance and scrub resistance
- Low water absorption
- Clear, glossy and flexible film

Product specifications

Solids content	%	50 ± 1
pH value		7.0 - 9.0
Viscosity at 25°C (Brookfield DV-II+ Pro, spindle 63, 60 rpm, 25 °C)	cps	7000 - 14000

Other product specifications

Density	lbs/gal	approx. 1.02 - 1.07
Average particle size	µm	approx. 0.1
Minimum film-forming temperature	°C	approx. + 13
Frost resistance		not resistant to frost
Dispersion type		Anionic
Plasticizer content		No
Mixing with water		Good
Ability to bind pigments		High

Film properties

Film appearance	Transparent
Flexibility	Good
Resistance to ageing	High
Resistance to light	Strong

Application

Ranges of application

Uzacryl® M20 - general-purpose binder, mainly used for the following applications:

- Interior and Exterior paints, plastic paints for interior application
 - Textured coating, finishes and sealants
 - Primers for mineral substrates
 - Architectural finishes
 - Modifying silicate paints and finishes
 - Protective coatings for concrete
 - Plasters and crack fillers
 - Silk paints, semi – gloss paints and full glossy paints
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Processing

At production of building paints of general purpose, glutinous materials, filled paints, plasters with synthetic pitches and crack fillers where required good viscosity and high content of solids, the mixture is produced in a high speed impeller mills. Thus the dispersion and auxiliary substance serve for binding fillers and pigments. Manufacturing of building paints can be produced in the usual manner in a high speed impeller mills such as a dissolver so that the filler/pigment mix was preliminary dispersed and is mixed with auxiliary substances, and the dispersion would be added only in the end.

Uzacryl® M20 is extremely stabilized and can maintain shock loadings in a high speed impeller mills and beaded mills without destruction. Due to such quality, our product allows to receive, for example, crack fillers with a very high content of pigments and fillers that it is not possible to reach on others styrene acrylic dispersions that, in turn, allows to reduce the price of cost of a ready material. Uzacryl® M20 has a tendency to foam as other dispersions. It is essential to add defoamer during the process of producing emulsion paints and similar applications. Efficiency of defoamers should be defined by practical consideration. Our dispersion is protected from influence of microorganisms. It is required to add antibacterial agents to the finished products to ensure good storage stability. Compatibility and efficiency of applied preservative will be checked by practical consideration. For regulation of viscosity and optimization of product, it is necessary to add various thickeners. The most applied thickeners are: cellulose ethers, poly acrylates and diurethane. Stiffener choice depends on what should be a finished product (thixotropic or less viscous).

Uzacryl® M20 have a good film formation at temperatures above 13°C. Thus the minimum film forming temperature can be reduced at the expense of application coalescing agents: Texanol, buthyl diglycol or buthyl diglycol acetate (in quantities of 1-1.5 % from the whole formulation). Low molecular alcohol and glycols improve the freeze thaw stability and glossy of the finished products but do not cause any reduction of the film forming temperature. For giving of the special elasticity of a film it is possible to add plastifiers. It is desirable for manufacturers to make own experiments and tests on development of various goods with application Uzacryl® M20. Our investigations and recommendations, certainly, can not cover all variety of factors, capable to make the impact in the course of its production and application (for example, compatibility of components, mixing process, adhesion to the various establishments, etc.).

Safety

General

According to our experience and the information at our disposal, Uzacryl® M20 does not exert any harmful effects on health, provided it is used for the purpose for which it is intended and processed in accordance with current industrial practice.

It is required to observe standard requirements at work with chemicals and local rules on industrial hygiene. In particular, the place of work must be well ventilated if large quantities are being processed, the skin should be protected, and safety glasses should be worn at all times. In case of skin/eye contact, rinse eyes/skin in plenty of water. Long-term contacting with product can cause irritation to the skin and mucous membranes after prolonged exposure.

Storage

Uzacryl® M20 at storage and processing must not be allowed to come into contact with corrosive metals or their alloys without protective coating. Containers with a product should be tightly sealed and the free air space in warehouses must be sated by moisture, not allowing hit of direct sun rays. To avoid problems with microorganisms, it is necessary to observe the rules hygiene of containers for product storage. It should not be exposed to strong heating and freezing. Drums should be disposed in one stage. On condition of storage in the specified conditions at temperature +5 °C / +35 °C, the product does not change the properties within 12 months from manufacturing date.

Like other polymer dispersions, Uzacryl® M20 is sensitive to iron, copper, zinc and aluminum. It is necessary to avoid contact to these metals or their alloys. It concerns not only storehouse's tanks, but also to pipelines, mixers, industrial containers etc.

Packaging

All dispersions produced by the company are packaged in modern steel barrels with capacity 200 kg., as well as in any other form of packaging under the agreement with consumer.

Transportation

Uzacryl® M20 is transported in sealed barrels (steel with plastic liner) at temperature not below +5 °C.

Note

The information contained in this publication is based on our current knowledge and experience and is intended to provide general notes on our products and their uses. Any other intended applications should be discussed with VEK LLC. In view of the many factors that may affect processing and application of our product, this information does not rescue processors from carrying out their own researches and assays. VEK LLC DOES NOT ASSUME RESPONSIBILITY FOR ANY RESULTS OBTAINED BY PERSONS OVER WHOSE METHODS VEK LLC HAS NO CONTROL AND EXPRESSLY DISCLAIMS ANY RESPONSIBILITY FOR THE SUITABILITY OF THE PRODUCTS FOR ANY SPECIFIC OR PARTICULAR PURPOSES INTENDED BY THE USER. The user of the products is solely responsible for compliance with all laws and regulations applying to the use of the products, including intellectual property rights of third parties.

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