



ACS-SB ACRYLIC RESIN CONCENTRATE

Before beginning installation, thoroughly review all product and system information and diligently study the Safety Data Sheets (SDS). Initiate the installation only once you have gained a comprehensive understanding of the product and the system.

Prioritize workplace safety at all times - Personal Protective Equipment (PPE), as specified in the SDS, should be worn and utilized throughout the installation process. Remember, the longevity and performance of the final product hinge on proper surface preparation - the foundation of successful installations.

PRODUCT NAME

ACS-SB Acrylic Resin Concentrate

PRODUCT DESCRIPTION & USE

ACS-SB Acrylic Resin Concentrate is a 100% solids high-quality, versatile product characterized by its exceptional general-purpose utility.

This top-notch thermoplastic acrylic resin (MMA/BMA copolymer) forms crystal-clear solutions in the appropriate solvents, and these solutions air-dry rapidly, forming hard, colourless films.

These films display superior resistance to blocking and outstanding colour retention, making them ideal for various applications. ACS-SB Acrylic Resin Concentrate is well-suited for creating concrete sealers for pool decks, driveways and various other exterior concrete surfaces.

Additionally, it's ideal for maintenance coatings and general concrete and masonry finishing. In terms of solubility, the ACS-SB Acrylic Resin Concentrate shows versatility. It's soluble in a wide range of solvents including xylene, n-butyl acetate, PM Acetate and dimethyl carbonate (DMC).

ADVANTAGES & LIMITATIONS

ADVANTAGES

- Offers a transparent, durable and resilient decorative finish
- The adaptable mix design empowers the applicator to select their preferred solids content, offering greater flexibility in usage
- Product is shipped without the additional costs and complexities typically associated with the transportation of Class 3 Flammable Liquids

COLOUR

Transparent coating in cured film.

LIMITATIONS

- If the base surface is compromised, exhibiting signs of damage such as crumbling, corrosion, or the presence of efflorescence or if it is potentially contaminated with substances like petrol or oil, corrective measures must be taken
- Not soluble in aliphatic solvents, including mineral spirits. Insoluble in most alcohols including isopropyl alcohol
- This product is specifically intended to be used for outdoor applications, in light of the potential health hazards and risks associated with the use of diluting solvent in confined, indoor environments.





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APPLICATION & USE

SITE & MATERIAL CONSIDERATIONS

SURFACE PREPARATION

Before application, ensure the following conditions are satisfied:

- The substrate must be structurally sound, without significant defects or inconsistencies.
- The surface needs to be clean, devoid of contaminants, dust, curing agents, compounds, or any barriers that might obstruct adhesion.
- A Concrete Surface Profile (CSP) of 1 is recommended, in line with the standards set by the International Concrete Repair Institute (www.ICRI.org).
- Surface preparation may necessitate high-pressure washing (at a minimum of 17,000 kPa/2,500 psi) or light grinding. For more information, refer to the Alluvius Technical Bulletin SP-1.

SOLVENT SELECTION

The legal repercussions of using non-compliant products, which include hefty fines and potential criminal charges, are serious. Therefore, it's essential to ensure the products you use comply with the regulations in your specific location.

Please consider the following guidelines when selecting any solvent-based product:

- Verify that the product you plan to use complies with the Volatile Organic Compound (VOC) regulations in the region where it will be used.
- Be aware that low-VOC coatings often necessitate different application methods. So, familiarize yourself with these techniques to ensure proper usage and the desired end results.
- If you are uncertain about local requirements, don't hesitate to consult with your distributor or reach out directly to the manufacturer for clarification.

MIXING

In order to prepare the solution in a 5-gallon (18.9 liter) pail, begin by introducing the necessary quantity of suitable solvent to achieve your targeted solid content. After adding the solvent, start the non-sparking mixer and maintain steady stirring.

While the mixer is in operation, gradually introduce the ACS-SB Acrylic Resin Concentrate. This ensures the concentrate is thoroughly incorporated into the solvent, resulting in a smooth and consistent mixture.

It's important to note that the solubility of the ACS-SB Acrylic Resin Concentrate varies significantly depending on the solvent used. For instance, xylene dissolves the ACS-SB Acrylic Resin Concentrate considerably faster than DMC.

In certain conditions, the mixing process could take several minutes. It is essential to persist until the ACS-SB Acrylic Resin Concentrate and the solvent are fully combined into a homogeneous mixture. Ensure there are no inconsistencies, as a thoroughly integrated mix is crucial for optimal performance.





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SOLVENT MIXING RATIO GUIDE

The tables provided herein offer a detailed guide on how to attain certain volume solids content percentages. This is accomplished through the weight-based ratios of Xylene or Dimethyl Carbonate (DMC) to ACS-SB Acrylic Resin Concentrate.

While other solvents and their blends are available, they have not been covered in this document to maintain brevity. The calculations within these tables are based on a total mix volume of 5 gallons (18.9 liters). It's imperative to understand that the resulting solids content is represented as volume solids, not by weight.

SOLIDS CONTENT BY VOLUME (%)	XYLENE WEIGHT (KG)	ACS-SB CONCENTRATE WEIGHT (KG)	XYLENE WEIGHT (LBS)	ACS-SB CONCENTRATE WEIGHT (LBS)
10	14.73	2.07	32.48	4.56
15	13.58	3.11	29.94	6.86
20	12.44	4.13	27.43	9.11
21	12.96	4.32	28.57	9.52
22	12.48	4.52	27.51	9.97
23	12.01	4.72	26.47	10.41
24	11.54	4.92	25.44	10.85
25	11.07	5.13	24.42	11.31

SOLIDS CONTENT BY VOLUME (%)	DMC WEIGHT (KG)	ACS-SB CONCENTRATE WEIGHT (KG)	DMC WEIGHT (LBS)	ACS-SB CONCENTRATE WEIGHT (LBS)
10	15.03	1.74	33.13	3.83
15	14.10	2.62	31.09	5.77
20	13.16	3.49	29.03	7.70
21	12.94	3.67	28.53	8.09
22	12.72	3.85	28.03	8.49
23	12.50	4.03	27.56	8.89
24	12.28	4.21	27.07	9.28
25	12.06	4.39	26.58	9.68

**This practical guide aims to help you accurately mix your materials to achieve the desired solids concentration, from 10% to 25%. Please bear in mind, these values are approximations and actual results might vary slightly due to various factors.*





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CAUTION

It's essential to thoroughly read and fully understand the potential hazards associated with the particular solvent chosen for diluting ACS-SB Acrylic Resin Concentration.

Ensure the proper storage of any unused materials, and label them appropriately for easy identification. Always adhere to local, state, and federal regulations when handling these materials.

The products, once mixed, are highly flammable. For your safety, please adhere strictly to the following precautions:

- Store these products away from heat sources, sparks, and open flames. Their vapors are flammable and may ignite, causing a flash fire.
- Ensure that smoking is strictly prohibited in the vicinity of these products.
- Remember to extinguish all flames and pilot lights, and turn off potential ignition sources such as stoves, heaters, and electric motors during use and until all vapors have fully dissipated.
- Avert the build-up of hazardous vapors by maintaining good ventilation in the area. These products are not to be used indoors.
- Always handle these products in well-ventilated environments to ensure safety.
- Mix only the amount of material required for the task. Avoid storing mixed materials to circumvent potential risks. If there are leftovers of the mixed material, label it and store appropriately in accordance with local, state, and federal regulations.

APPLICATION

Once surface preparation and ACS-SB dilution are completed, apply the ACS-SB using an application method of your choice. The preferred options are a roller—specifically, a solvent-resistant 12mm nap lambswool roller cover—an airless spray device, or a pump-up sprayer.

For a successful application, divide the surface area into workable sections, using elements like joints, partitions, and immobile objects as boundaries for these sections.

Apply ACS-SB as a thin, uniform film, maintaining a wet edge to control material overlap. Avoid applying ACS-SB in thick layers or allowing it to pool in joints or surface divots.

To apply ACS-SB using a roller, you have two main options. You could either pour ACS-SB into a metal painter's tray, which ensures even distribution on the roller, or you could employ the "dip and roll" sealing technique.

The "dip and roll" technique involves removing the lid from the 18.9 liter (5 gallon) pail of ACS-SB, then immersing a roller directly into the pail. With the roller evenly coated, proceed to apply ACS-SB uniformly across the surface. This approach is efficient and effective, particularly for large areas or extensive projects.

ACS-SB requires a cure period of 24 hours before use and 72 hours before vehicular traffic can traverse and park on the coating. Light foot traffic may commence after 12 hours.

Typically, two coats are required for adequate surface protection. The second coat should be applied in the same way as the first, with similar coverage rates. Allow the first coat to dry for a minimum of 12 hours before applying the second coat.





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COVERAGE AND CONSUMPTION RATE

The coverage rates of the diluted ACS-SB sealer may vary depending on various parameters. These include the type of solvent used, the solids content, the texture and porosity of the concrete, the condition of the concrete, the chosen application method, and local circumstances.

In general, applying two light coats of the sealer at 20-22% solids at the advised coverage rates should sufficiently seal and protect the surface. If you desire a higher level of gloss, enhanced durability, and increased protection, additional coats may be applied once the initial coats have fully dried.

For specific surfaces, the estimated coverage per gallon is as follows:

SURFACE TYPE	COVERAGE PER LITER (M ²)	COVERAGE PER GALLON (SQ/FT)
Smooth Finish	7.5	300
Rough/Broom Finish	5	200
Exposed Finish	2.5	100

**Please note these figures are approximations and actual coverage may vary.*

ENVIRONMENTAL CONDITIONS DURING INSTALLATION

To ensure optimal results, apply ACS-SB in calm, dry conditions between 8°C (46.5°F) and 35°C (95°F). Make sure there's no chance of rain or precipitation during the application or for a period of six hours afterward.

The surface to be coated must be dry and free of any moisture that could interfere with the curing of ACS-SB. New concrete should cure for a minimum of 14 days before coating.

CLEAN UP

Thoroughly clean all tools and materials with solutions or solvents such as dimethyl carbonate (DMC) or xylene where approved. Rigorously wash hands and any exposed skin with warm water and soap. Any clothing that comes into contact with the product should be promptly removed.

In the event of an ACS-SB Acrylic Resin Concentrate spill, exercise extreme caution while cleaning up the material. The granules are round in shape and pose a significant slipping risk, akin to walking on ball bearings. Always prioritize safety while dealing with such incidents.

PROPERTIES OF MATERIAL

PROPERTY	VALUE
Solids By Volume	100% (+/- 1%)
Solids By Weight	100% (+/- 1%)
Density	1.09 g/cm ³
Volatile Organic Compounds (VOC) ASTM D-2369	< 10 grams per liter





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RESTRICTIONS

The application substrate must be thoroughly clean, devoid of any standing water, and free from all contaminants such as dirt, oil, grease, coatings, and surface treatments, among others.

Please note the following:

- This product is designed solely for outdoor use.
- For application of coatings with a solids content exceeding 15%, ensure the concrete has been allowed to cure for a minimum of 28 days.
- If applying a coating with a solids content of 10% or less, the concrete should be cured for at least 15 days.

STORAGE & PACKAGING

ACS-SB Acrylic Resin Concentrate is to be stored from 10°C (50°F) to 35°C (95°F) and away from direct sunlight. Materials are best used within 24 months of the date of manufacture if kept in original sealed containers.

When ACS-SB Acrylic Resin Concentrate is diluted in a solvent, the storage conditions for the resulting solution should align with the guidelines provided in the Safety Data Sheet (SDS) of the specific solvent used. It's critical to adhere to these instructions to ensure safety and maintain product efficacy.

DISPOSAL

Please be aware that product containers will hold residual amounts of product and must be handled with care. Adhere to the warnings detailed on the labels at all times. All containers must be disposed of following federal, state, and local regulations to ensure responsible waste management.

HEALTH & SAFETY PRECAUTIONS

Please consult the Safety Data Sheet (SDS) for comprehensive guidance on handling ACS-SB Acrylic Resin Concentrate.

- During the mixing and application process, it's essential to prioritize personal safety. Please ensure to wear chemical-resistant gloves, eye protection, approved respiratory equipment, and protective clothing, as detailed in the Safety Data Sheet (SDS) of the selected solvent. Adherence to these guidelines is vital in maintaining safety standards during product handling.
- Ensure that your workspace is well-ventilated and avoid inhaling any fumes
- If the product comes into contact with your skin, cleanse immediately with warm soapy water and change out of contaminated clothing. If dermatitis symptoms occur, seek immediate medical attention.
- Vapors for diluting solvent are flammable and may ignite, causing a flash fire.

ADDITIONAL NOTES

- The specifics provided for cure time, and coverage should not be considered absolute; they are subject to change based on site conditions
- We strive to provide typical values to be used as a reference





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DISCLAIMER

The data provided in this technical document is a culmination of our laboratory testing and practical experience. However, this document does not constitute a guarantee for the product's properties in terms of any legally stipulated warranties.

Should you need further clarification or information to make an appropriate assessment, we encourage you to reach out to us directly.

All Alluvius products are manufactured according to strict specifications, and while we can vouch for the quality of the product itself, we do not control the conditions under which the products are transported, stored, or handled, and we cannot predict or oversee the conditions under which they will be used.

Therefore, we strongly advise each user to study this product data sheet in light of their intended handling and usage of the product and to conduct comprehensive tests before adapting the product for their specific uses.

Please note that we reserve the right to alter the provided data without any prior notice.

