

**ZYPOL (SOLID)****[Excellent adhesion and multi-point bonding]****Product attributes:**

- ZYPOL (SOLID) is a water dispersible high molecular weight anionic polyester resin.
- ZYPOL (SOLID) provides excellent adhesion to polyester / Polypropylene / Acrylic fiber and prevents migration. The small nano size particles of the resin in water solution helps in better penetration and provides multi-point bonding even in the inner layers of the substrates.
- ZYPOL (SOLID) strong binding is longer lasting even after repeated handling.
- The product requires lower curing temperature compared to acrylic resin thereby saving energy cost and possibly can improve m/c productivity.
- The viscosity of the product can be altered by special additives for thickening.
- ZYPOL (SOLID) being thermoplastic in nature the final non-woven becomes recyclable.
- The product is free from alkyl phenol ethoxylates and heavy metal particles like Hg, Cd and Pb.

**Specifications:**

Physical Form	:	Solid Granules
Diluent	:	Water
Solid content	:	98 ± 2%
Nature	:	Anionic

### **Preparation of 25% solution:**

Following procedure may be adopted for making 25% solution:

Zypol (Solid)	:	25 kg
Water (Demineralized water or Soft water with low total dissolved solids)	:	75 kg
Total Wt.	:	100 kg.

*Note: Solid content of recipe is  $\frac{\text{Solid} \times 100}{\text{Total Weight}}$  : 25.00%*

### **Procedure:**

1. Take 75 parts of water used in the recipe. Start heating and bring it close to boiling.
2. Use high speed stirrer having high shear capability.
3. Addition of 25 parts of Zypol (Solid) should be spread over 20-30 minutes after the temperature reaches 90°C. This ensures easy solubilization. Do not add all the powder at one time.
4. Heat further for 30-60 minutes to dissolve Zypol (Solid) completely.
5. Part of water, which evaporated during heating, should be replaced by adding equivalent amount of water.
6. Allow it to cool to 30-35°C. Adjust the concentration to desired level. The solution would be hazy.

## Applications:

Acrylic fur fabric back coating	Zypol 25% or diluted solution gives better bonding to acrylic fur and polyester yarn used as a backing yarn in the back coating process. This results in lower fiber loss / migration during down stream processing or handling at the consumer stage.
Resin bonding of 100% polyester based wadding	Zypol 25% when used for spray bonding of polyester wadding of high gsm gives excellent resilience, bulky and soft fibrous feel for especially quilt application.
Resin bonded polyester interlining	Zypol 25% or diluted solution along with emulsifier by padding process provides better multi point bonding with polyester fiber.
Back coating of plush and velvet fabrics	Zypol 25% or diluted solution can be applied by foam coating / coating for better bonding, lower fiber migration and better feel.
100% polyester non-woven resin bonded automobile top liner application	Zypol 25% solution with foaming agent by foam coating to get fibrous feel, stiffness and moldability of the non woven.
Resin bonding of polyester based narrow width fabric	Zypol 25% or diluted solution by padding and curing provides excellent retentive binding with dimensional stability without affecting colour for garment and gift packing application.
	Zypol 25% or diluted solution gives better retentive stiffness without shade variation of fabric. apply solution by padding for vertical blind application. The product is fast to multiple washes with retained stiffness.
Sizing of multifilament glass yarn	Zypol 25% or diluted solution gives better multi point binding, which results in better loom performance.



Pad finish of woven glass fabric	Pad finish with Zypol 25% or diluted form to the glass fabric gives stiff finish with retained adhesion and strong alkali resistance while used as thermal insulation material in building application.
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## Complementary Products:

**EMULSIFIER-5** : To generate required amount of foam.

## Storage :

- Keep the bags of Zypol (Solid) in cool shade. Do not store in direct sun or at a temperature higher than 40°C.
- In case the bags are open and are intended to be stored for a longer time, ensure to tie and seal the mouth to avoid moisture contact.
- Minimum shelf of the product is 12 months.

## ***Disclaimer:***

*The information & data contained herein are given in good faith but without warranty. We recommend that before using our products, the customer should make his/her own tests to determine the suitability of the products for his/her own purpose under his/her operating conditions. As the circumstances under which our products are stored, handled and used are beyond our control, we cannot assume any responsibility for their use by the customers.*

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