

# Vitel® 2200B

# COPOLYESTER COATING RESIN

#### **KEY FEATURES**

- Excellent clarity, hardness, and abrasion resistance
- Good UV resistance
- Can be cross-linked for increased performance

#### **DESCRIPTION**

Vitel® 2200B is a thermoplastic, high molecular weight, aromatic, linear saturated polyester resin. It is a hard resinous amorphous polymer exhibiting high tensile strength and low elongation. This premium quality resin finds specialized use either alone or modified in applications where high cohesive strength is of prime importance. This resin demonstrates superior adhesion, clarity, hardness and abrasion resistance. Vitel® 2200B also exhibits good dielectric properties and good retention of physical properties after ultraviolet light exposure. Primary applications for Vitel® 2200B are as primer, binder for pigments in inks, lacquers or hard top coatings. For applications that require higher resistance to heat, moisture, or chemicals, Vitel® 2200B can be cross-linked with curative such as isocyanates, melamine resins, and phenolic resins.

# **PACKAGING**

Vitel® 2200B is available in drums and 50 lb bags. Contact your Bostik representative for more packaging information

# **SHELF LIFE**

The shelf life of Vitel® 2200B is approximately 12 months when stored in closed, original containers at temperatures between 5 and 35°C (41 and 95°F).



TYPICAL PHYSICAL PROPERTIES		
Description	Results	
Tensile at Break (ASTM D638-89)	9,600 psi	
Elongation at Break (ASTM D638-89)	7%	
Melt Viscosity @ 215 °C (ASTM D3236-88)	290,000 cPs	
Form	Pellets	
Melt Flow Index (ASTM D1238-86)	8 g/10min (Dried) 13 g/10min (50% RH) 18 g/10min (95% RH)	
CIE Lab Color	L* : 95 (min) b* : 10 (max)	
Specific Gravity	1.27	
Shore Hardness D at 25°C (ASTM D2240-86)	79	

TYPICAL POLYMER PROPERTIES		
Description	Result	
Molecular Weight	Mn: 24,500 Mw: 47,500 Mz: 73,000 Mw/Mn: 1.94 (PS ref.)	

#### **STORAGE & HANDLING**

Like all synthetic resins, Vitel® 2200B can retain or develop static charge due to its handling. Precautions against a static discharge should be taken particularly in areas where solvent vapors exist. Otherwise, there are no special precautions necessary in handling this resin. Under typical ambient conditions, Vitel® 2200B is an inert material.

## **APPLICATION TECHNIQUES**

Vitel® 2200B can be used on all dry laminating machines, with smooth or rotogravure rollers. Since Vitel 2200B is most frequently applied from solution, solvent selection is important. Vitel® 2200B is soluble in methyl ethyl ketone, methyl ethyl ketone/toluene blends, cyclic ethers, chlorinated or stronger solvents. A minimum application weight of 2 g/m² (dry) is recommended. Optimum adhesion is obtained with an application weight of approximately 3 g/m². For aggressive requirements, the coating weight can be increased to 4 g/m² or higher.

#### **DILUTION**

Dilution may be done with PU grades (<0.1% H2O-content) of ethyl acetate, acetone, MEK or a mixture of these solvents. The adhesive system should be processed at a solids content of approximately 20-23% when applied via gravure. Ideal coating viscosity is between 75-115 cp.

#### **SOLUTION POT LIFE**

Vitel® 2200B in solution has very good pot life stability. If the container is well sealed, then the solution will keep for at least 6 months at room temperature storage. When used in conjunction with a curative, pot life will vary. It is not recommended to hold the reactive solution more than 8 hours before application.

#### **USE WITH CURATIVES**

Vitel® 2200B can be cross-linked if increased strength, chemical and moisture resistance, or temperature resistance are required. Solvated Vitel® 2200B resin can be mixed with isocyanates, melamine resins, and phenolic resins, depending on the application.

# **DRYING**

Drying conditions must be adjusted to the substrate, application weight and line speed in order to avoid the retention of solvents. The dried and fully cured adhesive film will be transparent and neutral in odor.

#### **ACTIVATION TEMPERATURE**

The minimum activation temperature is 250°F (121°C) but a temperature of 313°F (156°C) is recommended.

Acid Number	1-3 mgKOH/g
Hydroxyl Number	3-5 mgKOH/g
Glass Transition Temperature	69 °C
Melt Flow Temperature	156°C
Oxygen Diffusion (ASTM D3985-81)	18 cc/100 sq in/24 hour/1atm/1 mil
MVTR (ASTM F372-73)	2.6 g/24 hour/100 sq in
Volume Resistivity	1.4x10^15 (Ω/cm)
Dielectric Strength	1 mil : 6,500 V/mil 3 mil : 4,000 V/mil

#### **FOOD LEGISLATION**

Vitel® 2200B complies with the positive lists of many internationally accepted guidelines for the production of articles intended to come into indirect contact with foodstuff. Please contact your Bostik representative with the specific application.

#### **HEALTH & SAFETY PRECAUTIONS**

The Safety Data Sheet should be consulted for proper handling, clean up and spill containment before use. Keep containers covered to minimize contamination.

### **LIMITED WARRANTY**

The Limited Warranty for this product can be found at www.bostikus.com/resource-center/warranties or by calling 1-800-726-7845 (choose option 2, then option 2 again). To the maximum extent allowed by law, Bostik disclaims all other express or implied warranties, including without limitation warranties of merchantability and fitness for a particular purpose. Unless otherwise stated in the limited warranty, the sole remedy for breach of warranty is replacement of the product or refund of the buyer's purchase price. Bostik disclaims any liability for direct, incidental, consequential, or special damages to the maximum extent allowed by law. Disclaimers of implied warranties may not be applicable to certain classes of buyers and some states do  $\,$ not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. It is the buyer's obligation to test the suitability of the product for an intended use prior to using it. The Limited Warranty extends only to the original purchaser and is not transferable or assignable. Any claim for a defective product must be filed within 30 days of discovery of a problem, and must be submitted with written proof of purchase.

# **BOSTIK HOTLINE**

Smart help 1-800-726-7845

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