

Product Data



908 LENOIR ROAD • POST OFFICE BOX 1809
HICKORY, NORTH CAROLINA • 28603-1809
TELEPHONE (828) 328-1721
TOLL FREE (800) 334-5975
FAX (828) 328-4572

BSE-1195 LOW HAP CLEAR AXIOM MARBLE COATING

- **HAP (Formulated) Content 43%**
- **EMISSION REDUCTION OF 25% CAN BE EXPECTED**
- **IMPROVED CLARITY - VEINING IS MORE DRAMATIC**
 - **WHITES ARE WHITER**
 - **COLORS ARE BRIGHTER**
- **REDUCED IN-BOX YELLOWING 75%+ REDUCTION IN COLOR CHANGE**
- **IMPROVED UV RESISTANCE**
- **EXCELLENT HYDROTHERMAL SHOCK RESISTANCE**

HK Research Corporation's Axiom marble coatings are unsurpassed in the Cultured Marble Industry for their superior properties. The Axiom marble coating systems provide the Cultured Marble manufacturer with a clear, colorless, hard, stain and abrasion resistant surface for cultured marble. When used in conjunction with high quality matrix resins and good manufacturing procedures, these coatings will easily provide 2500+ cycles in the hydrothermal shock test (ANSI Z124.3 series).

Using a proprietary polymer grafting technique blended with styrene and MMA, HK Research has developed a **Grafted Polymer** that is truly "Revolutionary!" This grafted polymer has multiple reactive sites that allow superior cross-link density (high molecular weights = best weathering and water resistance) using shorter polymer chains (better in-shop application properties). AND this new grafted polymer has inherent flexibility. This yields a highly flexible, strong, user-friendly product. The resulting product, when properly applied, yields superior properties. We named the polymer "Axiom marble coating".

BSE-1195, when backed with a quality matrix system, produces a product that **MINIMIZES** "in-box" or "face-to-face" color change (yellowing), allowing the manufacturer to inventory products for a longer period of time. Substantial reductions in color change will occur with most commercially available matrix resins.

Page 1 of 4
HKR179-110901

BSE-1195 is formulated to offer a rapid film cure, which in turn, assures maximum physical properties of the cast component such as resistance to such common cure-related problems of staining, thermal shock cracking and premature yellowing. Cast components made from BSE-1195 Axiom marble coatings maintain their original color even when stored in sealed boxes for several months before installation.

COLOR

The color of the HK Research Clear Axiom marble coatings is effectively controlled through the most modern electronic instrumentation.

PROCESSING PROPERTIES

The handling characteristics of HK Research Clear Axiom marble coatings are unmatched for their ease of application, quick leveling, air release, and rapid cure.

HK Research manufactures a series of Axiom marble coatings that allows the use of this exceptional material under most conditions. To establish the correct material for your manufacturing equipment and conditions, please contact our representative or our technical service laboratories at 1-800-334-5975 or 828-328-1721. You may also e-mail us at www.hkresearch.com.

TYPICAL PROPERTIES OF LIQUID COATING

BSE-1195

Weight/Gallon @ 77°F:	9.0- 9.2 pounds
Specific Gravity @ 77°F:	1.0 – 1.2
Viscosity, Brookfield	
@ 77°F @ 6 rpm:	10,000-12,000 cps
@ 60 rpm:	1,500-2,000 cps
Thixotropic Index:	5.5 – 6.5
Gel Time, 100 Grams	
@ 77°F, 2% MEKP:	8 – 13 minutes
Shelf Life -	
Uncatalyzed, @ 77°F:	3 months minimum

APPLICATION

HK Research Corporation's "BSE" series Axiom marble coatings are formulated for standard conventional spray application as well as "air-less" application. Most of the systems are suitable for use in standard "air-less equipment" or the currently available "low pressure-air assisted" airless type equipment. These high performance coatings require careful application in order to maximize the properties in the cured coating film. Poor application of the "BSE" series Clear Axiom marble coatings will cause a reduction in the properties of the cured coating film.

Typical cured film properties that can be expected from these Axiom marble coatings when applied as directed include the following:

@ 77°F, 2% MEKP

Film Gel Time	10-14 minutes
Cure Time to Matrix Pour	25-35 minutes
Barcol Hardness, Cured Film	35-40 units

MIXING

Prior to removal from the shipping container and catalyzation, it is recommended that the materials be mixed thoroughly to reincorporate any "settled" or "stratified" material. It is further recommended that the material in the shipping container be mixed at least once a week during its use period. The mixing procedure would assure the most uniform properties during application of the Axiom marble coating. Mechanical mixing is recommended and should be sufficient to "turn" the material 10 times. Most common coating mixing equipment will accomplish an adequate blend in less than 1/2 hour.

DO NOT MIX MATERIAL CONTINUOUSLY!---As this may cause loss of thixotropic properties. If the BSE product is inadvertently over-mixed, hold material for 4 hours without agitation before application.

It is suggested that the catalyst concentration used in the application of the "BSE" Axiom marble coating not exceed 3.0% or fall below 1.5% to retain maximum properties. The recommended range for the catalyst concentration within the applied film is 1.8 to 2.2% at 77°F.

Recommended catalysts are Hi-Point 90, Hi-Point 90 LP, Cadox L-50a, and DDM-9. Call HK's Lab for other recommendations.

Under normal conditions, the coating is ready to pour on in 25 to 35 minutes depending on the system that is used. The "time to pour" is dependent on the room temperature, humidity and air movement, as well as the catalyst concentration and the film thickness. A wet film thickness of at least 20 to 25 mils is recommended for optimum properties. These products should not be used when the temperature conditions, both mold and ambient, are below 65°F. as the curing may be adversely affected.

SAFETY CONSIDERATIONS

"BSE" series Axiom marble coatings are based on a resin that contains styrene monomer, which is a flammable liquid. Keep away from sparks, heat and open flame (including pilot lights). Electrical equipment should be vapor-proof and protected from breakage.

Styrene vapors are heavier than air and will tend to concentrate in the low areas of molds and in pockets immediately above the floor area. To keep vapors within a safe limit in all areas, adequate ventilation or suction fans should be used that will remove these styrene monomer vapors.

All equipment must be grounded - including spray guns and molds.

Both the Axiom marble coatings and the catalyst may cause burns to eyes and skin. Do not get in the eyes! Avoid breathing vapors! Coating applicators should wear a NIOSH approved respirator effective for vapors, spray mist and dust. In case of accidental contact, remove the contaminated clothing and wash affected skin areas with soap and copious quantities of water. Contact a physician if persistent skin irritation occurs. For eyes, immediately flush with plenty of water for at least 15 minutes; call a physician immediately. Wash contaminated clothing before reusing.