# B.W. Sands Corp.

## Scratch & Sniff Recommendations

### **Product Specifications**

<u>Encapsulate Material</u>: The fragrance encapsulates have a median size of 6 microns, can withstand temperatures as high as 200°C for short periods and will not be adversely affected by UV light, IR dryers or Heat Set Web Ovens. The encapsulate material, in powder form can be stored for 2 to 3 years, providing the storage conditions remain stable and the fragrance oil is not degraded in any way.

<u>Mixing Ratios</u>: There is no standard determination for the amount of encapsulates to mix into any of the varnishes offered. However, a general guideline to follow would be 75% - 80% Varnish to 15% - 25% Fragrance Encapsulates.

### **Mixing Recommendations**

Mixing the encapsulate material into the varnish will require the use of a high-speed mixer and a highly accurate scale. The end result should ensure that the encapsulate material is dispersed thoroughly to produce a smooth homogenous mixture with no agglomerations.

<u>Scales:</u> All material is measured based on weight. A scale with minimum measurement increments of at least 0.01 lb / 0.005 kg is recommended.

<u>Mixing Equipment:</u> For proper dispersion of encapsulates, a high speed mixer ranging from 900 rpm -3000 rpm is required. Depending on the viscosity of the varnish, we recommend using either a dispersion blade for lower viscosity varnishes or a smooth toothless blade for high viscosity varnishes. To achieve a good homogeneous distribution with more viscous varnishes a 3 roller mill may be used. Settings should be kept as open as possible to ensure that there is shear, but not enough force to break encapsulates.

### **Printing Recommendations**

<u>Sheet Fed or Heat Set Web Varnishes (Including UV):</u> Low odor gloss varnishes are recommended. A 20% loading of encapsulates will somewhat matt the varnish. Use the varnish as soon as possible for best results.

<u>Aqueous Offset & Flexo Coatings:</u> Aqueous formulations containing alcohols or solvents are known to attack the fragrance encapsulates. Due to the lower viscosity of the varnishes, capsules may tend to settle or float to the surface depending on the specific gravity of the specific fragrance oil. Continual agitation of the ink before and during printing is highly recommended.

<u>Silk Screen:</u> There is more flexibility with mixing silk screen varnishes since the application process is relatively gentle on the capsules. Higher concentrated mixing ratios of encapsulates to varnish may be achieved by this means. A 200 micron mesh size is generally recommended for printing. This is the most recommended method of printing and is available in Aqueous, Solvent and UV Cure.

#### All applications using this product should be thoroughly tested prior to approval for production.

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