



Instructions For Application of BinaryFIB® Pressure Sensitive Paint

(Product ID: BF-XXX)

Warning! Use with adequate ventilation or appropriate respiratory protection. This product is flammable; do not spray near flame, heat, or sparks. This product contains solvents and propellants that may damage some plastic surfaces.

Note! FIB-based paints must be sprayed over clean metal, FIB basecoat (FB-XXX), or cured screen layer (SCR-XXX). Failure to do so may result in the PSP manifesting a high temperature sensitivity to its pressure response and/or corruption of the pressure response calibration.

Directions:

1. Clean the model, calibration coupons, and a small test piece with alcohol or acetone on wipes.
2. Shake the paint thoroughly for several minutes. Ideally, the paint in its container may also be partially submerged in an ultrasonic bath (cleaner) filled with water for a few minutes to enhance mixing.
3. Pour the paint into the gun without filtering or straining.

For the HVLP gun:

Set gun to 10 psi (68kPa). This may vary due to air-hose differences. This keeps overspray to a minimum. Set the fluid control knob on the sprayer all the way closed (clockwise) and then open it two full turns (anticlockwise) and pattern control to almost full open or anticlockwise. This setting yields a sheet pattern (as opposed to a circular pattern at the opposite extreme of the adjustment) which typically yields more uniform results.

For the air brush:

4. Set the pressure to 10 psi (68kPa) or less.
5. Test your spray method on a test piece of metal. Keep the gun about 12 inches (30 cm) away from surface while spraying.

See the specific directions for each product below before painting the model surface.

Over a bare metal surface or screen layer coated surface, apply about 12 to 18 (very light) cross coats. Cross coats means working from left to right or right to left while moving down the model, then work back up left to right or right to left. This constitutes one coat. The next coat is applied top to bottom or bottom to top in a similar manner.

Do not exceed 18 coats as too much paint could result in separation from the metal. Do not apply a wet coat. Wet coats may cause the model to appear to have a skin rash.

For all Paints:

For best results, apply light coats, allow paint to dry between coats (~10 sec.), and STOP when you have good coverage.

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Storage & Care:

Photo-degradation of the paint in liquid form can occur if exposed to light. Store paint bottles and cans in a location away from room lighting or ambient lighting. Recommended locations are in a cabinet or locker that is located in an indoor climate controlled area. Keep this flammable material away from heat, sparks, flames, or other sources of ignition.

Once a surface is painted, keep out of room lighting or ambient lighting when not in use, storing the model in a locker or covering carefully to avoid scratching. Do not touch the model once painted. Oil from the skin can penetrate the painted surface causing permanent damage. If the model must be handled after painting, use latex or nitrile gloves, careful not to scratch the painted surface.

Most common reasons for BinaryFIB® paint failure:**1. Too many coats on the surface.**

The paint will crack and peel off. This will require the model to be repainted.

2. Applying paint too heavily. (surface appears wet)

Generally caused by moving the gun too slowly. This will look like a rash, repaint recommended if the problem is extensive.

3. Grease or oil on surface.

May not notice this by eye, but the temperature and pressure sensitivity of the paint will be compromised. Clean and repaint. Pock marks or pits can also occur if the surface is not properly cleaned:

**Curing of Paint:**

After application, the paint needs to be cured at 75°C for 2 hours to reach the glass transition temperature of the polymer. Without this curing process, the BinaryFIB® will not be temperature compensating.

Removal of PSP from surfaces:

Acetone on wipes works best for metal surfaces, but will damage most plastic surfaces.

Caution! Acetone can damage the surface of some plastics!

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