

1706 Mn/DOT Method for Determining Lab Retroreflectivity of Glass Beads

1. Paint lines (stripes) (100 mm wide, 15 ± 1 mil wet thickness, 2' length) will be draw down each on an 1/10" x 6" x 3' aluminum substrate for each color of paint.
2. Glass beads will be dropped on at a rate of 3.6 kg (8 lbs) per gallon of paint using the Potters bead diffuser. 22.62 grams of glass beads gives 8#/gallon bead loading for a 4"x 2' x 15 mil paint line. Drawing down of paint followed by rapid dropping of pre-weighed beads gives good beaded line for measurement.
3. After paint line has cured, a total of 3 readings will be conducted on each sample with a 30 meter geometry LTL 2000 / LTL X.
4. The average of those 9 readings will be the lab retroreflectivity of the system (paint and beads).