**Guidance for Determining the Number of DuraShield Layers**

**for 5 Year Performance Warranty**

**Appendix A**

**Guidance for Estimating Traffic Counts**

Best case is to get traffic counts from the end customer. In the absence of this data the following can be used as guidance:

1. Big Box Home Improvement Retail

Home Depot has about 4.5 mm transactions per day and 2286 stores or 1,942 transactions/day.

Lowes has about 2.6 million transactions per day and 2002 stores or 1,299 transactions per day.

The Phoenix Lowes example project is 250,000 ft2. Using 2,000 cars per day across 250,000 square foot parking lot results in:

**Big Box home improvement guideline - one car per day per 125 ft2**

The example Lowes Phoenix store has 3 main entrances and 9 minor entrances. Estimate ⅓ of traffic to minor entrances and ⅔ of traffic to main entrances, evenly divided. This means (2,000/3)/9 or 75 cars per day for the minor entrances and ((2,000/3)x2)/3 or 444 cars per day for the main entrances.

A more normal situation probably has just the 3 main entrances so the count would be about 700 per entrance.

1. Food Supermarket Retail

Per Food Marketing Institute

* there are 38,000 grocery stores with revenue over $2 million/year and
* there is a range of 29 million to 42 million shoppers per day depending on the day of the week (say average is 35 million/day).
* the average visit is 41 minutes
* average transaction size in 2016 was $30.02 (Note: The estimate for Big Box stores was $89).

Per Time magazine the average grocery supermarket is 56,500 ft2. Ingles Store #7 is about 45,000 ft2 and has a parking lot of about 165,000 ft2 including the Gas Bar area.

35 million/38,000 is an average of 920 shoppers per day per store.

Ingles 2018 annual revenue $4.1 billion over 212 stores or about $19 million per store. Using $31.20 per transaction to allow for inflation versus 2016 average transaction size, this results in an average of 1668 transactions per day. Per Ingles annual report they have 11.2 million ft2 for $4.1 billion revenue or $1 per ft2 per day.

**For Food supermarkets with a Gas Bar this translates to 1 car per day per 100 square feet of parking lot.**

**For Food supermarkets without a Gas Bar this translates to about 1 car per day per 90 square feet of parking lot.**

**Additional guidance**

Consider areas with turning truck traffic as having the highest traffic level.

1. Office

Assumption is that users are arriving and departing once per day.

**Assume one car per day per parking stall**

**Appendix B**

**Background for Specification of Coating Plan**

Field review of 5 year old projects resulted in the following conclusions for maximum traffic counts in 3 climate zones:

Turning areas:

* Toronto - 500 vehicles per day per lane for 24 mils of SB150
* Washington, DC - 1500 vehicles per day per lane for 24 mils of SB150
* Phoenix - 2500 vehicles per day per lane for 24 mils of SB150

For calculations using these counts assume one layer of DS2 (14 mils) provides the equivalent of 8 mils of SB150. This means 2 additional passes of DS2 @ 65 ft2 per gallon or 2 additional passes of SB150 at 115 ft2 per gallon per pass would be required to reach the equivalent of 24 mils of SB150.

Using the above as reference:

**1 layer of DS2 at 65 ft2/gallon would be good for**

* **175 cars per day in Toronto**
* **500 cars per day in Washington, DC**
* **800 cars per day in Phoenix**

**From specification document:**

**TABLE 5: Recommended Coating Coverage Rates**

|  |  |  |
| --- | --- | --- |
|  | **Hot Dry Climate** | **Temperate/Winter Climate** |
| **Application** |  |  |
| **Up to 500 cars per day per lane** | 4 layers at 600 ft2 (56m2) per 5 gallon (20 Litre) unit for a net coverage of 150 ft2 (13.9m2) per 5 gallon (20 Litre) unit | 4 layers at 600 ft2 (56m2) per 5 gallon (20 Litre) unit for a net coverage of 150 ft2 (13.9m2) per 5 gallon (20 Litre) unit |
| **500 to 1000 cars per day per lane** | 4 layers at 600 ft2 (56m2) per 5 gallon (20 Litre) unit for a net coverage of 150 ft2 (13.9m2) per 5 gallon (20 Litre) unit | 4 layers at 600 ft2 (56m2) per 5 gallon (20 Litre) unit for a net coverage of 150 ft2 (13.9m2) per 5 gallon (20 Litre) unit, plus one additional layer in the wheel paths |
| **1000 to 2000 cars per day per lane** | 4 layers at 600 ft2 (56m2) per 5 gallon (20 Litre) unit for a net coverage of 150 ft2 (13.9m2) per 5 gallon (20 Litre) unit, plus one additional layer in the wheel paths | 4 layers at 600 ft2 (56m2) per 5 gallon (20 Litre) unit for a net coverage of 150 ft2 (13.9m2) per 5 gallon (20 Litre) unit, plus two additional layers in the wheel paths |
| **2000 to 3000 cars per day per lane** | 4 passes at 600 ft2 (56m2) per 5 gallon (20 Litre) unit for a net coverage of 150 ft2 (13.9m2) per 5 gallon (20 Litre) unit, plus two additional layers in the wheel paths | **No warranty is provided for traffic levels above 2000 cars per day per lane** |
|  | **No warranty is provided for traffic levels above 3000 cars per day per lane** |  |

**1.** **Additional layers** of **StreetBond® SB150** coatings may be used to provide additional build thickness in high wear areas such as vehicle wheel paths and turning areas.

**2.** A maintenance program may be required for applications exposed to:

· abrasive materials (such as salt and sand)

· abrasive equipment (such as snow removal equipment)

· Studded winter tires