

## Summary of Lab Test Results on TYPAVE™ 25

(TRI Report Reference: E2598-32-03; Client: PGINW-Fiberweb)

### Physical Ring Data:

2.30 in. O.D. x 1 in. high (2.11 in. I.D.)

0.597 sq. in. of plastic surface contact area per ring

3.58 sq. in. surface contact area per 6 ring test section

Physical Molded Unit Data (injection molded HDPE):

10 in. x 6.25 in. x 1 in. high (62.5 sq. in. per unit), 13.8 rings per sq. foot (avg. 10.4 sq. in. per ring)

### Lab Test Data: Bare Rings, with deflection stopped at 0.032 in.

12,257 lbs load to test section (6 rings)

3,424 psi plastic resin strength (12,257/3.58)

2,043 lbs per ring (12,257/6)

196.1 psi over test section area (12,257/62.5)

28,238 lbs per square foot load capacity (196.1x144)

### Lab Test Data: Sand Filled Rings

410,089 lbs per test section area (machine load)

68,348 lbs per filled ring (410,089/6)

6,561 psi load over test section area (410,089/62.5)

944,784 lbs per square foot load capacity (6561 x 144)

### Examples of Usage – TYPAVE™ 25

Auto tires—40 psi vs 6561 psi = 164x safety factor (6" x 6" tire contact area)

Truck tires—110 psi vs 6561 psi = 60x safety factor (6.5" x 6.5" tire contact area)

DC 10 tires—250 psi vs 6561 psi = 26x safety factor

F-16 tires—350 psi vs 6561 psi = 19x safety factor

Fire Truck Outriggers - 70,000 lbs/4 = 17,500 lbs/(12 in x 18 in) = 81 psi vs 6561 psi = 81x safety factor

**Heavy Truck Axle Load Demand** = 36,000 lbs on 4 tires (similar to old H-20 loading) (9" x 9" tire contact area x 9000 lbs per tire at 110 psi tire pressure)

TYPAVE™ 25 "bare" capacity = 196.1 psi x 81 sq.in. = 15,884 lbs/tire x 4 = 32 ton axle.

TYPAVE™ 25 "filled" capacity = 6561 psi x 81 sq.in. = 531,441 lbs/tire x 4 = 1063 ton axle load.

### Note:

Actual load bearing capacities of pavements using these products must provide for a rigid base to receive and accommodate the design loads planned - which are transferred from the surface to the base course by the rings. All load figures provided above for TYPAVE™ 25 are based upon lab tests conducted by TRI Environmental, Inc., Austin, Texas using its laboratory resources.