

ASTM D4060
TABER ABRASION TESTING
FOR
SUPERIOR PRODUCTS INTERNATIONAL II
ON
12 PRODUCTS
VTEC #100-1558-3 THRU 14
TESTED: AUGUST 23, 2002



VTEC Laboratories Inc.

August 23, 2002

Client: Superior Products International II
10835 W. 78th Street
Shawnee, KS 66214

Attention: Mr. J.E. Pritchett

Test Method: This test was conducted in accordance with ASTM D4060; Taber Abrasion Resistance Measurements @ standard temperature and humidity, using a Taber Model 5130 Abrader and equipped with C-17 wheels and 1,000 gram load.

Disclaimer: This is a factual report of the results obtained from the laboratory test of sample products. The results may be applied only to the products tested and should not be construed as applicable to other similar products of the manufacturer. The report is not a recommendation or disapprobation by VTEC Laboratories, Inc. of the material tested. While this report may be used for obtaining product acceptance, it may not be used in advertising.

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Results:

Test Number: V100-1558-9
 Test Date: August 23, 2002
 Material: ENAMO GRIP Solvent High Gloss Uncoated ,
 Load: 1,000 grams
 Wheel: CS-17
 Temperature: 83.5°F
 Relative Humidity: 63%
 Apparatus Used: Taber Model 5130 Abrader

Sample #1	Weight (grams)	Abrasion Loss (mg/100 revolution)
W ₀	66.0348	
W ₁₀₀	66.0272	7.60
W ₂₀₀	66.0208	6.40
W ₃₀₀	66.0163	4.50
W ₄₀₀	66.0123	4.00
W ₅₀₀	66.0081	4.20
Average		5.34

Sample #2	Weight (grams)	Abrasion Loss (mg/100 revolution)
W ₀	66.0087	
W ₁₀₀	65.9982	10.50
W ₂₀₀	65.9907	7.50
W ₃₀₀	65.9835	7.20
W ₄₀₀	65.9762	7.30
W ₅₀₀	65.9694	6.80
Average		7.86


 Neil Schultz
 Executive Director



 Amirudin Rahim
 Technical Director


Results:

Test Number: V100-1558-11
 Test Date: August 23, 2002
 Material: ENAMO GRIP (HG) - 2 oz Zinc Oxide
 Load: 1,000 grams
 Wheel: CS-17
 Temperature: 83.5°F
 Relative Humidity: 63%
 Apparatus Used: Taber Model 5130 Abrader

Sample #1	Weight (grams)	Abrasion Loss (mg/100 revolution)
W ₀	65.0956	
W ₁₀₀	65.0952	0.40
W ₂₀₀	65.0949	0.30
W ₃₀₀	65.0946	0.30
W ₄₀₀	65.0944	0.20
W ₅₀₀	65.0942	0.20
Average		0.28

Sample #2	Weight (grams)	Abrasion Loss (mg/100 revolution)
W ₀	70.0926	
W ₁₀₀	70.0922	0.40
W ₂₀₀	70.0919	0.30
W ₃₀₀	70.0917	0.20
W ₄₀₀	70.0916	0.10
W ₅₀₀	70.0915	0.10
Average		0.22


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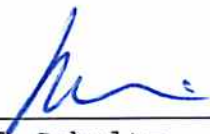

 Amirudin Rahim
 Technical Director

Results:

Test Number: V100-1558-10
 Test Date: August 23, 2002
 Material: ENAMO GRIP (HG) - 1 oz Zinc Oxide
 Load: 1,000 grams
 Wheel: CS-17
 Temperature: 83.5°F
 Relative Humidity: 63%
 Apparatus Used: Taber Model 5130 Abrader

Sample #1	Weight (grams)	Abrasion Loss (mg/100 revolution)
W ₀	65.0965	
W ₁₀₀	65.0957	0.80
W ₂₀₀	65.0951	0.60
W ₃₀₀	65.0945	0.60
W ₄₀₀	65.0940	0.50
W ₅₀₀	65.0937	0.30
Average		0.56

Sample #2	Weight (grams)	Abrasion Loss (mg/100 revolution)
W ₀	65.0918	
W ₁₀₀	65.0911	0.70
W ₂₀₀	65.0905	0.60
W ₃₀₀	65.0901	0.40
W ₄₀₀	65.0898	0.30
W ₅₀₀	65.0896	0.20
Average		0.44



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Results:

Test Number: V100-1558-12
 Test Date: August 23, 2002
 Material: ENAMO GRIP (HG) - 1 oz Aluminum Oxide
 Load: 1,000 grams
 Wheel: CS-17
 Temperature: 86.2°F
 Relative Humidity: 48%
 Apparatus Used: Taber Model 5130 Abrader

Sample #1	Weight (grams)	Abrasion Loss (mg/100 revolution)
W_0	65.0894	
W_{100}	65.0891	0.30
W_{200}	65.0889	0.20
W_{300}	65.0887	0.20
W_{400}	65.0886	0.10
W_{500}	65.0885	0.10
Average		0.18

Sample #2	Weight (grams)	Abrasion Loss (mg/100 revolution)
W_0	65.0951	
W_{100}	65.0945	0.60
W_{200}	65.0941	0.40
W_{300}	65.0939	0.20
W_{400}	65.0935	0.40
W_{500}	65.0932	0.30
Average		0.38



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Results:

Test Number: V100-1558-13
 Test Date: August 23, 2002
 Material: ENAMO GRIP (HG) - 2 oz Aluminum Oxide
 Load: 1,000 grams
 Wheel: CS-17
 Temperature: 86.2°F
 Relative Humidity: 48%
 Apparatus Used: Taber Model 5130 Abrader

Sample #1	Weight (grams)	Abrasion Loss (mg/100 revolution)
W_0	65.0935	
W_{100}	65.0909	2.60
W_{200}	65.0891	1.80
W_{300}	65.0878	1.30
W_{400}	65.0865	1.30
W_{500}	65.0851	1.40
Average		1.68

Sample #2	Weight (grams)	Abrasion Loss (mg/100 revolution)
W_0	67.0724	
W_{100}	67.0628	9.60
W_{200}	67.0546	8.20
W_{300}	67.0465	8.10
W_{400}	67.0392	7.30
W_{500}	67.0318	7.40
Average		8.12

NOTE: Sample #2 yielded results similar to the uncoated material and maybe this sample was not coated.



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Results:

Test Number: V100-1558-14
 Test Date: August 23, 2002
 Material: ENAMO GRIP (HG) - 4 oz Aluminum Oxide
 Load: 1,000 grams
 Wheel: CS-17
 Temperature: 86.2°F
 Relative Humidity: 48%
 Apparatus Used: Taber Model 5130 Abrader

Sample #1	Weight (grams)	Abrasion Loss (mg/100 revolution)
W_0	65.0954	
W_{100}	65.0952	0.20
W_{200}	65.0951	0.10
W_{300}	65.0950	0.10
W_{400}	65.0949	0.10
W_{500}	65.0948	0.10
Average		0.12

Sample #2	Weight (grams)	Abrasion Loss (mg/100 revolution)
W_0	70.0952	
W_{100}	70.0942	1.00
W_{200}	70.0935	0.70
W_{300}	70.0929	0.60
W_{400}	70.0924	0.50
W_{500}	70.0918	0.60
Average		0.68



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