

# NORTHWEST LABORATORIES of Seattle, Incorporated

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Report To: GODEN BY-PRODUCTS  
Attention: Jana Nairn

Date: May 27, 2004

Report On: Shock Attenuation of Recycled Tires

Lab No.: E78005-3

**TEST STANDARD:** ASTM F1292-99

**TITLE:** Impact Attenuation of surface systems Under and Around Playground Equipment.

**PRODUCT NAME:** Rubber Bark

**PRODUCT DESCRIPTION:** Four (4) inch depth. Nominal ¾" piece sizes.  
Product manufactured from recycled scrap tires.

## **TEST RESULTS:**

<u>Temperature</u>	<u>Drop Height (Feet)</u>	<u>Drop</u>	<u>Gmax</u>	<u>HIC</u>
30°	8	1	115	610
	8	2	117	580
	8	3	115	566
		Avg. (Drop 2 & 3)	116	573
30°	9	1	124	707
	9	2	129	718
	9	3	139	790
		Avg. (Drop 2 & 3)	134	754
30°	10	1	141	903
	10	2	149	926
	10	3	154	963
		Avg. (Drop 2 & 3)	151.5	944.5
72°	8	1	108	530
	8	2	105	481
	8	3	108	516
		Avg. (Drop 2 & 3)	106.5	498.5
72°	9	1	116	672
	9	2	131	756
	9	3	133	754
		Avg. (Drop 2 & 3)	132	755

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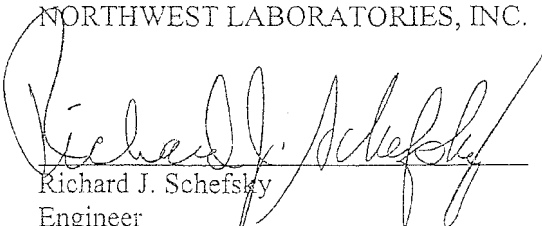
<u>Temperature</u>	<u>Drop Height (Feet)</u>	<u>Drop</u>	<u>Gmax</u>	<u>HIC</u>
72°	10	1	123	755
	10	2	135	811
	10	3	138	834
		Avg. (Drop 2 & 3)	136.5	822.5
120°	8	1	99	484
	8	2	115	593
	8	3	129	673
		Avg. (Drop 2 & 3)	122	633
120°	9	1	121	672
	9	2	151	842
	9	3	236	1123
		Avg. (Drop 2 & 3)	193.5	982.5
120°	10	1	121	713
	10	2	159	990
	10	3	327	1331
		Avg. (Drop 2 & 3)	243	1160.5

## CONCLUSION:

In accordance with ASTM F1292-99, this product qualifies for a fall height of nine (9) feet.

This report applies only to the actual samples tested. Northwest Laboratories does not certify, warrant, or guarantee any products manufactured by others. Samples discarded within **thirty (30) days** unless otherwise requested in writing by you.

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Richard J. Schefsky  
Engineer