



June 3, 2011

**COMMENTING PERIOD RESULTS:** Green Seal Standard for Sanitary Paper Products, GS-1: Contaminant Definition Revision with Corresponding Changes to 4.5.3 and 4.5.7, Addition of Specifications for Center Pull Towels, and Minor Editorial Modifications

Green Seal is in the process of revising the contaminant definition and other editorial modifications to the Green Seal Standard for Sanitary Paper Products, GS-1. Comments from the public were solicited on a Proposed Revised Standard from April 20, 2011 until May 6, 2010.

Included in this document are the comments received on the criterion revision along with Green Seal responses.

By participating in Green Seal's standard setting process, the following organizations that provided comments played an important role in Green Seal's effort to encourage the design, manufacture, and end use of environmentally superior products. Their assistance and involvement is greatly appreciated.

**Participating Organizations:**

Wausau Paper

Cascades Tissue Group

Georgia-Pacific Corporation

**Response to Comments:**

The language of the criterion revision is included, followed by comments, and Green Seal's response to the comments in red. Any modifications that resulted in changes to the standard are included in italics.

**General Comments****Comment:**

Revisions look good. Language around carcinogens is much more clear. Good add for centerpull towels.

**Comment:**

We appreciate the efforts employed by Green Seal to revise section 2.7 by placing the evaluation for the contaminant on the "Product" rather than the individual raw material additives.

Although we do not believe there is a need for the individual products to be listed (we have previously provided our comments on this issue), we believe if these products are to remain as a part of the Standard, it would be appropriate to add the center pull towel as a separate category.

**Response:**

Green Seal acknowledges your comments.

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**2.7 Contaminant. A substance that was not intentionally added, but is known to be present above 0.01% (100 parts per million) by weight, in the product.**

**Comment:**

Ok.

**Response:**

Green Seal acknowledges your comment.

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**3.1.1 Basis Weight (grammage). Basis weight (grammage) shall be measured according to Technical Association of the Pulp and Paper Industry (TAPPI) T 410 or International Organization for Standardization (ISO) 536. It shall also meet the following requirements when measured as grams per square meter (g/m<sup>2</sup>, SI Units) or pounds/ream (lbs/ream, English units):**

<b>Product</b>	<b>Basis Weight</b>	<b>Grammage<sup>(a)</sup></b>
	<b>(lbs/ream<sup>(b)</sup>)</b>	<b>(g/m<sup>2</sup>)</b>
<i>Institutional paper towels –hard wound</i>	15 – 35	24.4 – 56.9
<i>Institutional paper towels – center pull</i>	11 - 22	17.9 – 35.8
<i>Institutional paper towels –folded</i>	15 - 35	24.4 – 56.9
<i>Institutional paper towels –kitchen roll</i>	11 - 30	17.9 – 48.8
<i>Retail paper towels – folded</i>	15 - 35	24.4 – 56.9
<i>Retail paper towels – kitchen roll</i>	11 - 30	17.9 – 48.8
<i>Paper napkins</i>	9 – 28.5	14.6 – 46.4
<i>Bathroom tissue</i>	8 – 22	13.0 – 35.8
<i>Facial tissue</i>	8 – 19	13.0 – 30.9
<i>Toilet seat covers</i>	8 – 10.5	13.0 – 17.1
<i>Placemats/Tray Liners</i>	26 – 40	38.5 – 59.2
<i>Table coverings</i>	15 - 22	22.2 – 32.6

**Comment:**

Center pull towel, would raise the upper basis weight value from 22# to 28# and from 35.8 gram to 45.6 gram/m<sup>2</sup>.

**Response:**

Green Seal reviewed additional specification data and will broaden the range for basis weight for center pull towels. This change will be made to the table in the standard, as follows:

<b>Product</b>	<b>Basis Weight</b>	<b>Grammage<sup>(a)</sup></b>
	<b>(lbs/ream<sup>(b)</sup>)</b>	<b>(g/m<sup>2</sup>)</b>
<i>Institutional paper towels –hard wound</i>	15 – 35	24.4 – 56.9
<i>Institutional paper towels – center pull</i>	11 - 28	17.9 – 45.6
<i>Institutional paper towels –folded</i>	15 - 35	24.4 – 56.9
<i>Institutional paper towels –kitchen roll</i>	11 - 30	17.9 – 48.8
<i>Retail paper towels – folded</i>	15 - 35	24.4 – 56.9
<i>Retail paper towels – kitchen roll</i>	11 - 30	17.9 – 48.8
<i>Paper napkins</i>	9 – 28.5	14.6 – 46.4
<i>Bathroom tissue</i>	8 – 22	13.0 – 35.8
<i>Facial tissue</i>	8 – 19	13.0 – 30.9
<i>Toilet seat covers</i>	8 – 10.5	13.0 – 17.1

<i>Placemats/Tray Liners</i>	<i>26 – 40</i>	<i>38.5 – 59.2</i>
<i>Table coverings</i>	<i>15 - 22</i>	<i>22.2 – 32.6</i>

**3.1.2.2 Tensile strength using TAPPI T 576. Product characteristics shall meet the following requirements when tested according to TAPPI T 576 (dry and wet tensile strength), as measured in gf/3in (English units):**

Product	Dry Tensile Strength <sup>(a)</sup>		Wet Tensile Strength	
	MD	CD	MD	CD
	(gf/3in)	(gf/3in)	(gf/3in)	(gf/3in)
<i>Institutional paper towels –hard wound</i>	<b>5100 - 9300</b>	<b>1800 - 6000</b>	<b>750 - 2550</b>	<b>300 - 2100</b>
<i>Institutional paper towels – center pull</i>	<b>1200 - 4500</b>	<b>300 - 2400</b>	<b>300 - 1500</b>	<b>150 - 600</b>
<i>Institutional paper towels –folded</i>	<b>2400 - 8100</b>	<b>600 - 3900</b>	<b>690 - 1800</b>	<b>270 - 1200</b>
<i>Institutional paper towels –kitchen roll</i>	<b>1200 - 3900</b>	<b>300 - 1950</b>	<b>300 - 1050</b>	<b>150 - 600</b>
<i>Retail paper towels – folded</i>	<b>2400 - 8100</b>	<b>600 - 3900</b>	<b>690 - 1800</b>	<b>270 - 1200</b>
<i>Retail paper towels – kitchen roll</i>	<b>1200 - 3600</b>	<b>300 - 1920</b>	<b>300 - 900</b>	<b>150 - 510</b>
<i>Paper napkins</i>	<b>1200 - 3300</b>	<b>690 - 1710</b>	--	--
<i>Bathroom tissue</i>	<b>420 - 2700</b>	<b>150 - 1350</b>	--	--
<i>Facial tissue</i>	<b>750 - 2250</b>	<b>240 - 750</b>	<b>45 - 240</b>	<b>24 - 120</b>
<i>Toilet seat covers</i>	<b>6 - 30</b>	<b>1.5 - 6</b>	--	--
<i>Placemats/Tray liners</i>	--	--	--	--
<i>Table Coverings</i>	--	--	--	--

**Comment:**

On 3.1.2.2 - all these results are 3x the results for 3.1.2.1. and we cannot reconcile why - but we don't agree with the values in 3.1.2.2, they are too high for our products on the minimums. Also note that the primary descriptive method for wet strength testing in the TAPPI standards referenced in these tables requires the use of the Finch cup - a method our company discarded several years ago.

**Response:**

The TAPPI method results for these tests are measured as force per unit width of test specimen. TAPPI T 494/456 requires a one inch wide sample and TAPPI T 576 requires a three inch wide sample. Therefore there is a difference in the results (e.g., units for TAPPI T 576 are gram force/3 inch, and the test results are proportionately different).

It is worth noting that this section in the standard is an either/or requirement: "The product characteristics shall be measured for tensile strength in the machine direction (MD) and cross direction (CD) using the methods described in **either** section 3.1.2.1 **or** section 3.1.2.2." Therefore one would only be required to meet the levels in the table from section 3.1.2.2 if the TAPPI T 576 method was used.

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**3.1.3 Stretch and Water Absorbency. Product characteristics shall meet the following requirements when tested according to TAPPI T 494 or ISO 1924/3, or TAPPI T 576 for stretch, and TAPPI T 432 for water absorbency, as measured in % stretch or seconds of water absorbency:**

Product	Stretch	Water Absorbency
	(%)	(seconds)
<i>Paper towels-institutional</i>	2 - 22	0 - 160
<i>Paper towels - retail</i>	2 - 22	0 - 160
<i>Paper napkins</i>	2 - 22	0 - 180
<i>Bathroom tissue</i>	2 - 24	--
<i>Facial tissue</i>	2 - 24	--
<i>Toilet seat covers</i>	1 - 10	--
<i>Placemats/Tray liners</i>	1 - 10	--
<i>Table Coverings</i>	--	--

**Comment:**

No issues.

**Response:**

Green Seal acknowledges your comment.