



THE ISSUE WITH TISSUE 2021 SCORECARD

A BUYER'S GUIDE TO THE SUSTAINABILITY OF AT-HOME TISSUE PRODUCTS



TOILET PAPER

Brand	Score/Grade
Who Gives A Crap 100% Recycled	A+
Green Forest	A+
365 Everyday Value, 100% recycled	A
Natural Value	A
Seventh Generation Unbleached Recycled Bath Tissue	A
Trader Joe's Bath Tissue	A
Marcal 100% Recycled 2-ply	A
Everspring by Target	A
Seventh Generation Extra Soft & Strong	A
GreenWise by Publix	A
Scott Essential Standard Roll	A
Walmart Great Value 1000	B+
Cloud Paper Tree-Free Toilet Paper	B+
Bim Bam Boo	B+
Cheeky Panda Bamboo Toilet Paper	B
Betterway Premium Bamboo	B
NooTrees Bamboo 3 Ply Bathroom Tissue	B
Bambooloo Bamboo Toilet Rolls	B
Thrive Market	B
Grove Collaborative Seedling 3-ply Jumbo Roll Tree Free Toilet Paper	B
Tushy Premium Bamboo Toilet Paper	C+
Silk'n Soft Oh' Natural (Unbleached) Bathroom Tissue 3 Ply	C



TOILET PAPER

Brand	Score/Grade
Reel Paper Premium Bamboo Toilet Paper	C
Cottonelle Professional Toilet Paper	D
365 Everyday Value, Sustainably Soft	D
Trader Joe's Super Soft Bath Tissue	D
Who Gives A Crap Premium 100% Bamboo	D
True Earth Silk'n Soft White Bathroom Tissue 3 Ply	D
No.2	D
Scott 1000	F
Cottonelle Ultra	F
Scott ComfortPlus	F
Charmin Ultra	F
Kirkland by Costco	F
Amazon Basics Ultra	F
Quilted Northern Ultra Soft & Strong	F
Walmart Great Value Ultra	F
Angel Soft	F
Quilted Northern Ultra Plush	F
Target Up & Up Soft & Strong	F
Presto	F
Solimo	F
Aria	F
Fiora	F

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PAPER TOWELS

Brand	Score/Grade
Thrive Market	A+
Everspring by Target	A+
Green Forest	A+
365 Everyday Value	A
Natural Value	A
Seventh Generation 100% Recycled Paper Towels - Unbleached	A
Trader Joe's	A
Marcal	A
Marcal Small Steps	A
GreenWise by Publix	A
Seventh Generation 100% Recycled Paper Towels - White	A
Cloud Paper Bamboo Paper Towels	B+
Bim Bam Boo	B+
Grove Collaborative Seedling Jumbo Roll Tree-Free Paper Towels	B
Cheeky Panda Bamboo Kitchen Towels	B
Bambooloo 100% Bamboo Kitchen Rolls	B
Reel Paper Premium Bamboo	C
Great Value Everyday Strong Paper Towels	D
Solimo	D
Viva	F
Bounty Advanced	F
Bounty	F
Brawny	F
Sparkle	F
Target Up & Up	F
Kirkland by Costco	F
Presto	F
Aria	F
Fiora	F
Walmart Great Value Ultra Strong Paper Towels	F



FACIAL TISSUE

Brand	Score/Grade
Green Forest	A+
Natural Value	A
Trader Joe's	A
Fluff Out by Marcal	A
Seventh Generation	A
Bim Bam Boo	B+
Grove Collaborative Seedling Tree-Free Facial Tissue	B
Thrive Market	B
Cheeky Panda Bamboo Tissues	B
Bambooloo Bamboo Facial Tissue	B
365 Everyday Value, Sustainably Soft	D
Great Value Everyday Soft Facial Tissue	D
Who Gives A Crap Forest Friendly Tissues	D
Kirkland	F
Kleenex Everyday	F
Puffs Ultra Soft	F
Up & Up Soft	F
Solimo	F
Presto	F
Fiora	F
Quilted Northern Ultra	F

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SCORECARD METHODOLOGY

The following is the methodology used in this scorecard for grading toilet paper, paper towel, and facial tissue brands. The selections include brands on the market in July 2021 and are based on data taken from product websites, product packaging, and company communications.

The scorecard includes the flagship brands from the three tissue companies with the largest market shares: Procter & Gamble, Kimberly-Clark, and Georgia-Pacific. Given that private-label products (store brands) cumulatively constitute another substantial portion of the marketplace, the scorecard includes a selection of these products as well. And to provide a representative cross-section of recycled tissue products, we added to the mix some tissue brands made primarily from recycled material.

Because of the recent increase in tissue products made with bamboo fiber, the 2021 scorecard includes a new grading system for bamboo fiber products. According to peer-reviewed life cycle analyses (LCAs) commissioned by Stella McCartney and Kimberly-Clark, bamboo has a smaller environmental footprint than virgin forest fiber but a larger footprint than recycled fiber and some agricultural residues.¹ However, bamboo is not always a recommended fiber. It can be produced at the expense of primary forests, with the latter being clearcut to establish bamboo plantations.²

This risk is mitigated if a company purchases bamboo fiber that has been certified by the Forest Stewardship Council (FSC), which ensures that this fiber is sourced in a way that respects human rights and avoids negative forest impacts.³ Like the methodology for scoring traditional virgin fiber tissue products, the methodology for bamboo products awards the most points to those that are FSC certified and offers some points to products without FSC certification that can still demonstrate they do not source from primary or converted forests. For bamboo products specifically, if a particular product lacks FSC certification on its packaging, the manufacturer can demonstrate they avoid primary and converted forests by showing all their fiber comes from FSC-certified areas.

The impacts of making tissue products from 100 percent virgin forest fiber remain severe, harming communities, the climate, threatened species, and biodiversity and furthering the destruction of the world's remaining primary forests.⁴ The 2021 scorecard assesses 100 percent virgin forest fiber brands in much the same way as the 2020 scorecard did, but with an additional indicator for avoiding primary forests, which are vital for upholding Indigenous rights, storing carbon, and supporting biodiversity.⁵

This year's tissue scorecard grades 36 new products—20 new toilet paper brands, 9 new paper towel brands, and 7 new facial tissue products. Of these, 26 are made from bamboo fiber. This brings the total number of products scored to 95. Last year, 23 products out of 75 scored received A grades, and 6 received A-pluses. This year, 24 products received A grades, and 6 received A-pluses because their products are manufactured using at least 90 percent postconsumer recycled content. In addition, 16 products received B or B-plus grades.

There are many brands not on the scorecard. However, we urge consumers to evaluate products not included according to the same criteria used in this scorecard.

The grading system for tree fiber and recycled fiber products evaluates the brands based on their pre-consumer and postconsumer recycled content, whether the virgin fiber used is fully FSC certified or FSC-Mix certified, whether the company avoids sourcing fiber from primary forests, and the type of bleach used. Elemental chlorine-free (ECF) bleach, despite its name, emits elemental chlorine gas into the air and water of communities near tissue manufacturing plants and is commonly used in virgin fiber tissue products as well as some bamboo products.⁶ This gas is harmful because it releases dioxins, which are toxic chemicals linked to cancer and other health risks.⁷ Products made from virgin fiber that do not use any chlorine are labeled totally chlorine free (TCF). Recycled paper products, on the other hand, primarily use far less toxic bleaching agents, like processed chlorine-free bleach (PCF). Both TCF and PCF bleaching processes receive points in the 2021 scorecard methodology.

For bamboo products, the system evaluates whether the product has FSC certification, the type of bleach used, and, if not FSC certified, whether the company avoids sourcing fiber from primary forests or bamboo plantations that were converted from primary forests after 1994.⁸ These are the criteria NRDC deemed the best indicators of how the brands impact primary forests and the environment more broadly.

Baseline quantitative measures were created for each brand according to the percentage of each fiber type used. For example, if a brand were composed of 60 percent virgin fiber and 40 percent postconsumer recycled fiber, virgin fiber would have a baseline quantitative measure of 60 and postconsumer recycled fiber would have a baseline quantitative measure of 40.

If a brand were 100 percent bamboo fiber, that brand would have a baseline quantitative measure of 100.

Each criterion was assigned a different weighting factor, depending on its estimated relative sustainability value. The weighting factors were as follows:

Postconsumer recycled content: 5 x baseline quantitative measure

Pre-consumer recycled content: 4 x baseline quantitative measure

Bamboo fiber product with FSC certification label: 4 x baseline quantitative measure

Bamboo fiber with no FSC certification: 2 x baseline quantitative measure

Virgin fiber with full FSC certification: 2 x baseline quantitative measure

Virgin fiber with FSC-Mix certification: 1 x baseline quantitative measure

Virgin fiber or non-FSC bamboo fiber product that the manufacturer can demonstrate is not sourced from primary forests or plantations on land converted from forests after 1994: .75 x baseline quantitative measure

Fiber that uses non-chlorine bleaching methods (i.e., processed chlorine free [PCF] or totally chlorine free [TCF]): 1 x baseline quantitative measure

Each brand's baseline quantitative measures for each type of fiber were multiplied by the corresponding weighting factors and added together along with any bonus points to produce a raw score. For example, if the baseline quantitative measure of postconsumer recycled content were 40, this number would be multiplied by 5, the weighting factor for postconsumer recycled content. While the weighting factors for recycled materials were static, the weighting factors applied to the quantitative measures for virgin fiber content depended on whether that fiber was FSC certified and what kind of bleaching process was used.

The formula is as follows:

Raw score = 5 x [% of postconsumer recycled content] + 4 x [% of pre-consumer recycled content] + 4 x [% of bamboo fiber from product with FSC certification label] + 2 x [% of bamboo fiber with no FSC certification] + 2 x [% of virgin fiber that has full FSC certification] + 1 x [% of virgin forest fiber that has FSC-Mix certification] + .75 x [% of virgin forest fiber or non-FSC bamboo that hasn't been sourced from primary forests or those converted after 1994] + 1 x [% of fiber that uses non-chlorine bleaching processes]

Example 1

Let's say a brand has 20 percent postconsumer recycled content, 40 percent pre-consumer recycled content, and 40 percent virgin fiber content with full FSC certification. Let's also say the manufacturer uses an ECF bleaching process for its virgin fiber but can verify that it does not source from primary forests. In this case, the score would be calculated as follows:

$[5 \times 20] + [4 \times 40] + [2 \times 40] + [.75 \times 40] + [1 \times 60] = 430$ out of 600 possible points.

Example 2

If a brand uses 100 percent bamboo and carries the FSC label on package, but employs ECF bleaching, the score would be calculated as follows:

$[4 \times 100] = 400$ out of 600 possible points.

The grading scale is as follows:

590–600 points: A+

550–589 points: A

500–549 points: B+

400–499 points: B

350–399 points: C+

250–349 points: C

150–249 points: D

0–149 points: F

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TOILET PAPER

Brand	Company	Total % recycled	% post-consumer	% virgin fiber	FSC	Virgin/Non-FSC Bamboo Fiber Avoids Primary Forests?	Bleaching process	Score	Grade
100% Recycled	Who Gives a Crap	100	95	0	N/A	N/A	PCF	595	A+
Green Forest	Green Forest	100	90	0	N/A	N/A	PCF	590	A+
365 Everyday Value, 100% recycled	Whole Foods market	100	80	0	N/A	N/A	PCF	580	A
Natural Value	Natural Value	100	80	0	N/A	N/A	PCF	580	A
Seventh Generation Unbleached Recycled Bath Tissue	Seventh Generation	100	80	0	N/A	N/A	None	580	A
Trader Joe's Bath Tissue	Trader Joe's	100	80	0	N/A	N/A	PCF	580	A
Marcal 100% Recycled 2-ply	Marcal	100	60	0	N/A	N/A	PCF	560	A
Everspring	Target	100	50	0	N/A	N/A	PCF	550	A
Seventh Generation Extra Soft & Strong	Seventh Generation	100	50	0	N/A	N/A	PCF	550	A
GreenWise	Publix	100	50	0	N/A	N/A	PCF	550	A
Scott Essential Standard Roll	Kimberly-Clark	100	50	0	N/A	N/A	PCF	550	A
Great Value 1000	Walmart	100	0	0	N/A	N/A	PCF	500	B+
Bim Bam Boo	Bim Bam Boo	0	0	100% bamboo	Yes	N/A	TCF	500	B+
Tree-Free Toilet Paper	Cloud Paper	0	0	100% bamboo	Yes	N/A	TCF	500	B+
Thrive Market	Thrive Market	50	50	50% bamboo	No	No	PCF	450	B
Seedling 3-ply Jumbo Roll Tree Free Toilet Paper	Grove Collaborative	0	0	100% bamboo	Yes	N/A	ECF	400	B
Bamboo	Cheeky Panda	0	0	100% bamboo	Yes	N/A	ECF	400	B
Premium Bamboo	Betterway	0	0	100% bamboo	Yes	N/A	ECF	400	B
NooTrees Bamboo 3 Ply Bathroom Tissue	Bum Boosa Bamboo Products	0	0	100% bamboo	Yes	N/A	ECF	400	B
Bambooloo Bamboo Toilet Rolls	Bambooloo	0	0	100% bamboo	Yes	N/A	ECF	400	B
Premium Bamboo	Tushy	0	0	100% bamboo	No	Yes	TCF	375	C+
Silk'n Soft Oh' Natural (Unbleached) Bathroom Tissue 3 Ply	True Earth Paper Corp	0	0	100% bamboo	No	No	None	300	C
Premium Bamboo	Reel Paper	0	0	100% bamboo	No	Yes	ECF	275	C

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TOILET PAPER

Brand	Company	Total % recycled	% post-consumer	% virgin fiber	FSC	Virgin/Non-FSC Bamboo Fiber Avoids Primary Forests?	Bleaching process	Score	Grade
Cottonelle Professional Toilet Paper	Kimberly-Clark	25	20	75	Mix	No	ECF/PCF	220	D
365 Everyday Value, Sustainably Soft	Whole Foods Market	0	0	100	Mix	No	TCF	200	D
Trader Joe's Super Soft Bath tissue	Trader Joe's	0	0	100	Mix	No	PCF	200	D
No.2	No.2	0	0	100% bamboo	No	No	ECF	200	D
Premium 100% Bamboo	Who Gives a Crap	0	0	100% bamboo	No	No	ECF	200	D
Silk'n Soft White Bathroom Tissue 3 Ply	True Earth Paper Corp	0	0	100% bamboo	No	No	ECF	200	D
Scott 1000	Kimberly-Clark	5.6	4.5	94.4	Mix	No	ECF/PCF	126.9	F
Charmin Ultra	Procter & Gamble	5	0	95	Mix	No	ECF	115	F
Scott ComfortPlus	Kimberly-Clark	0	0	100	Mix	No	ECF	100	F
Cottonelle Ultra	Kimberly-Clark	0	0	100	Mix	No	ECF	100	F
Kirkland	Costco	0	0	100	Mix	No	ECF	100	F
Amazon Basics Ultra	Amazon	0	0	100	Mix	No	ECF	100	F
Quilted Northern Ultra Soft & Strong	Georgia-Pacific	0	0	100	Mix	No	ECF	100	F
Quilted Northern Ultra Plush	Georgia-Pacific	0	0	100	No	No	ECF	0	F
Up & Up Soft & Strong	Target	0	0	100	No	No	ECF	0	F
Presto	Amazon	0	0	100	No	No	ECF	0	F
Solimo	Amazon	0	0	100	No	No	ECF	0	F
Aria	Georgia-Pacific	0	0	100	No	No	ECF	0	F
Fiora	Solaris Paper	0	0	100	No	No	ECF	0	F
Great Value Ultra	Walmart	0	0	100	No	No	ECF	0	F
Angel Soft	Georgia-Pacific	0	0	100	No	No	ECF	0	F

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PAPER TOWELS

Brand	Company	Total % recycled	% post-consumer	% virgin fiber	FSC	Virgin/Non-FSC Bamboo Fiber Avoids Primary Forests?	Bleaching process	Score	Grade
Thrive Market	Thrive Market	100	100	0	N/A	N/A	PCF	600	A+
Everspring	Target	100	100	0	N/A	N/A	PCF	600	A+
Green Forest	Green Forest	100	90	0	N/A	N/A	PCF	590	A+
365 Everyday Value	Whole Foods Market	100	80	0	N/A	N/A	PCF	580	A
Natural Value	Natural Value	100	80	0	N/A	N/A	PCF	580	A
Seventh Generation 100% Recycled Paper Towels - Unbleached	Seventh Generation	100	80	0	N/A	N/A	None	580	A
Trader Joe's	Trader Joe's	100	80	0	N/A	N/A	PCF	580	A
Marcal	Marcal	100	60	0	N/A	N/A	PCF	560	A
Marcal Small Steps	Marcal	100	60	0	N/A	N/A	PCF	560	A
GreenWise	Publix	100	50	0	N/A	N/A	PCF	550	A
Seventh Generation 100% Recycled Paper Towels - White	Seventh Generation	100	50	0	N/A	N/A	PCF	550	A
Bamboo Paper Towels	Cloud Paper	0	0	100% bamboo	Yes	N/A	TCF	500	B+
Bim Bam Boo	Bim Bam Boo	0	0	100% bamboo	Yes	N/A	TCF	500	B+
Bamboo Kitchen Towels	Cheeky Panda	0	0	100% bamboo	Yes	N/A	ECF	400	B
Bambooloo 100% Bamboo Kitchen Rolls	Bambooloo	0	0	100% bamboo	Yes	N/A	ECF	400	B
Seedling Jumbo Roll Tree-Free Paper Towels	Grove Collaborative	0	0	100% bamboo	Yes	N/A	ECF	400	B
Premium Bamboo	Reel Paper	0	0	100% bamboo	No	Yes	ECF	275	C
Great Value Everyday Strong Paper Towels	Walmart	30	0	70	Mix	No	ECF	220	D
Solimo	Amazon	0	0	100	Yes	No	ECF	200	D
Bounty Advanced	Procter & Gamble	10	0	90	Mix	No	ECF	130	F
Viva	Kimberly-Clark	0	0	100	Mix	No	ECF	100	F
Bounty	Procter & Gamble	10	0	90	No	No	ECF	40	F
Brawny	Georgia-Pacific	0	0	100	No	No	ECF	0	F
Sparkle	Georgia-Pacific	0	0	100	No	No	ECF	0	F
Up & Up	Target	0	0	100	No	No	ECF	0	F
Kirkland	Costco	0	0	100	No	No	ECF	0	F
Presto	Amazon	0	0	100	No	No	ECF	0	F
Aria	Georgia-Pacific	0	0	100	No	No	ECF	0	F
Fiora	Solaris Paper	0	0	100	No	No	ECF	0	F
Great Value Ultra Strong Paper Towels	Walmart	0	0	100	No	No	ECF	0	F

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FACIAL TISSUE

Brand	Company	Total % recycled	% post-consumer	% virgin fiber	FSC	Virgin/Non-FSC Bamboo Fiber Avoids Primary Forests?	Bleaching process	Score	Grade
Green Forest	Green Forest	100	90	0	N/A	N/A	PCF	590	A+
Natural Value	Natural Value	100	80	0	N/A	N/A	PCF	580	A
Trader Joe's	Trader Joe's	100	80	0	N/A	N/A	PCF	580	A
Fluff Out	Marcal	100	60	0	N/A	N/A	PCF	560	A
Seventh Generation	Seventh Generation	100	50	0	N/A	N/A	PCF	550	A
Bim Bam Boo	Bim Bam Boo	0	0	100% bamboo	Yes	N/A	TCF	500	B+
Thrive Market	Thrive Market	50	50	50% bamboo	No	No	PCF	450	B
Bamboo Tissues	Cheeky Panda	0	0	100% bamboo	Yes	N/A	ECF	400	B
Bamboolo Bamboo Facial Tissue	Bamboolo	0	0	100% bamboo	Yes	N/A	ECF	400	B
Seedling Tree-Free Facial Tissue	Grove Collaborative	0	0	100% bamboo	Yes	N/A	ECF	400	B
365 Everyday Value, Sustainably Soft	Whole Foods Market	0	0	100	Mix	No	TCF	200	D
Great Value Everyday Soft Facial Tissue	Walmart	0	0	100	Yes	No	ECF	200	D
Forest Friendly Tissues	Who Gives a Crap	0	0	100% bamboo	No	No	ECF	200	D
Puffs Ultra Soft	Procter & Gamble	5	0	95	Mix	No	ECF	115	F
Kirkland	Costco	0	0	100	Mix	No	ECF	100	F
Kleenex Everyday	Kimberly-Clark	0	0	100	Mix	No	ECF	100	F
Up & Up Soft	Target	0	0	100	Mix	No	ECF	100	F
Solimo	Amazon	0	0	100	No	No	ECF	0	F
Presto	Amazon	0	0	100	No	No	ECF	0	F
Fiora	Solaris Paper	0	0	100	No	No	ECF	0	F
Quilted Northern Ultra	Georgia-Pacific	0	0	100	No	No	ECF	0	F

ENDNOTES

- 1 Tobias Schultz and Aditi Suresh, *Life Cycle Assessment Comparing Ten Sources of Manmade Cellulose Fiber*, SCS Global Services, October 10, 2017, <https://cdn.scsglobalservices.com/files/resources/SCS-Stella-LCA-MainReport-101017.pdf>. Kirsten Korosec, “Kimberly-Clark Study Pinpoints Bamboo as Possible Alternative Fiber,” *Energy + Environment Leader*, February 5, 2014, <https://www.environmentalleader.com/2014/02/kimberly-clark-study-pinpoints-bamboo-as-possible-alternative-fiber/>.
- 2 Canopy, “Canopy’s Bamboo Position,” https://canopyplanet.org/solutions/next-generation-solutions/canopys-bamboo-position/#_edn1 (accessed July 21, 2021).
- 3 Forest Stewardship Council, “FSC National Forest Stewardship Standard of the People’s Republic of China,” July 7, 2016, <https://fsc.org/en/document-centre/documents/resource/185>.
- 4 Shelley Vinyard and Jennifer Skene, *The Issue With Tissue 2.0: How the Tree-to-Toilet Pipeline Fuels Our Climate Crisis*, NRDC, June 2020, <https://www.nrdc.org/sites/default/files/issue-with-tissue-2-report.pdf>.
- 5 The 2020 methodology assessed both virgin fiber and recycled fiber tissue brands on the basis of what materials were used to manufacture each tissue product, FSC certification, and bleaching methods used. Vinyard and Skene, *The Issue With Tissue 2.0*. Sarah Ruiz, “What Are Primary Forests and Why Should We Protect Them?” *Global Forest Watch*, May 18, 2020, <https://www.globalforestwatch.org/blog/data-and-research/primary-forests-definition-and-protection/>.
- 6 Conservatree, “Chlorine Free Processing,” <http://www.conservatree.org/paper/PaperTypes/CFDisc.shtml> (accessed July 27, 2021).
- 7 CalRecycle, “Chlorine-Free Paper,” October 23, 2018, <https://www.calrecycle.ca.gov/paper/chlorinefree>.
- 8 1994 is the year after which any bamboo plantations created by clearing primary forests cannot gain FSC certification, which is why it is the adopted cutoff date here. Forest Stewardship Council, “FSC National Forest Stewardship Standard.”