

Adele Duterte

Kerreen Ryan

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Flushable Items Report

Flushing is the act of an item being emptied into the sewer by a rapid flow of water, such as a toilet. Flushable is the ability of certain items to be flushed, making their way to the sewer system. Flushable items are supposed to be completely or partially disintegrated (reduced to fragments or particles) by the time they arrive to the sewer system. However, most items that claim to be flushable, have demonstrated the opposite properties.

Here at the Neuse River Water Treatment Plant, we decided to test household products that people are likely to flush down the toilet, and/or make the claim of being flushable. The purpose of this experiment is to decipher how flushable certain items are by recreating a whirlpool spin similar to that of a toilet.

Experimental Procedure:

1. A 2000ml beaker filled with water, was placed on a magnetic stirrer and set to stir with a whirlpool effect.
2. Scott's regular toilet paper tissue was used as the control. The toilet paper was weighed based on heaviest product's weight being tested and recorded.

3. Scott's toilet paper was then placed into the 2000ml water-filled beaker and then observed for disintegration.
4. The toilet paper was then checked at increments of 10 minutes for an hour.
Observational data recorded.
5. Remnants of the toilet paper were then expelled into the waste basket, and the 2000ml beaker was then re-filled to test other flushable items.
6. Experimental procedure repeated for each household item being tested.

Observational Data:

Product	Observations
Scott's toilet paper tissue	Toilet paper disintegrated immediately upon spinning in the whirlpool.
Puff's plus tissue	Facial tissue showed no signs of disintegration with agitation. Kept spinning for an hour with observational updates in increments of 10 minutes. No disintegration observed by end of experiment.
Cottonelle Flushable Wipes	No disintegration with agitation.
Playtex Gentle Refresh Wipes	No disintegration with agitation.
Preparation H Medicated Portable Wipes	No disintegration with agitation.

Charmin Flushable Wipes	No disintegration observed at the beginning of spin, however, slight disintegration was observed after 10 minutes in the whirlpool spin. No further disintegration took place.
Natural Choice Flushable moist wipes	Flushable wipe disintegrated a bit with agitation. Kept spinning in whirlpool for an hour. Some disintegration was observed 10 minutes after spin commenced. More disintegration took place 10 minutes after. 1/3 of product disintegrated within the hour. Could possibly deteriorate completely if kept on whirlpool spin.
Tucks Witch Hazel Hemorrhoidal Toilet wipes	No disintegration with agitation.
Kandoo Flushable Wipes	No disintegration with agitation.
Tampax Flushable Wrapper	Flushable wrapper disintegrated immediately upon entering the whirlpool. Left on the whirlpool spin for an hour and was completely disintegrated by the end of the experiment hour.
Fresh Brush by Scrubbing Bubbles	Scrubbing bubbles scrub showed signs of disintegration 10 minutes after spin began. Continued to deteriorate during the hour. 25% of product disintegrated within the hour. Could possibly deteriorate completely if kept on whirlpool spin.
Clean & Clear Oil blotting sheets	No disintegration with agitation.
Kleenex Tissue	No disintegration with agitation.

Scott Scrub Cloths (half sheet)	No disintegration with agitation.
Scott Flushable Wipes	No disintegration with agitation.

The products deemed flushable are the products that showed signs of disintegration after being left for an hour spinning in the whirlpool. The flushable and non-flushable items are recorded below. Note that some packets that read flushable are not flushable according to our observation.

Recorded Data:

Product	Weight	Flushable	Non-Flushable (recommended)	Packet Read Flushable
Scott's toilet paper tissue	8.5426g	✓		✓
Puff's plus tissue	2.110g		✓	
Cottonelle Flushable Wipes	5.8945g		✓	✓
Playtex Gentle Refresh Wipes	6.3064g		✓	✓
Preparation H Medicated Portable Wipes	8.3820g		✓	✓
Charmin Flushable Wipes	6.3166g		✓	✓

Product	Weight	Flushable	Non-Flushable (recommended)	Packet Read Flushable
Natural Choice Flushable moist wipe	8.2164g	✓		✓
Tucks Witch Hazel Hemorrhoidal Toilet Wipes	7.4710g		✓	✓
Kandoo Flushable Wipes	3.9235g		✓	✓
Tampax Flushable Wrapper	0.3319g	✓		✓
Fresh Brush by Scrubbing Bubbles	6.0161g	✓		✓
Clean & Clear Oil blotting sheets	0.1047g		✓	
Kleenex Tissue	2.0650g		✓	
Scott Scrub Cloths	4.5274g		✓	
Scott Flushable Wipes	4.3420g		✓	✓

Conclusion

Many items that claim to be flushable are not flushable. It is strongly advised to think twice before flushing certain household products. They may cost you and your city in the long run.

Research was performed by Adele Deterte (Chemist) and Kerreen Ryan (Lab Technician). All Parameters were reviewed and acknowledged by Darrel Crews Interim Lab Supervisor.