

International Water Services Flushability Group (IWSFG), Working to Prevent the Damage Caused by Wipes



About the IWSFG

The International Water Services Flushability Group (IWSFG) is a group of dedicated water professionals seeking to provide clear guidance on what should and shouldn't be flushed down the toilet to protect customers, wastewater systems, utility workers, and the environment.

Countries Represented

- Australia
- Japan
- Spain
- United States of America
- New Zealand
- Canada
- Turkey

IWSFG Publicly Available Specification (PAS)



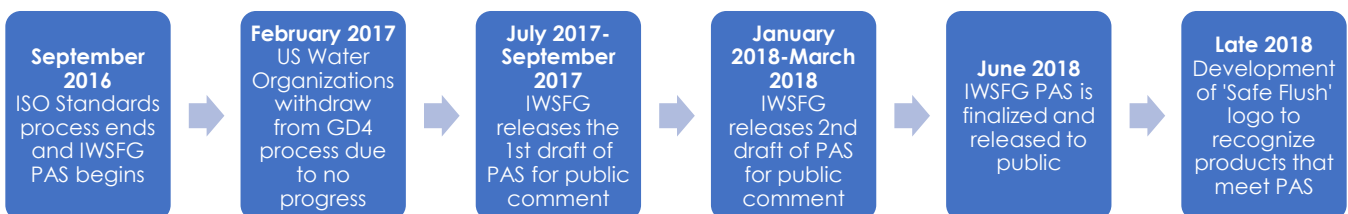
Wastewater treatment operators work on a pump clogged with wipes and other debris. (Photo provided by IWSFG)

Water service providers around the world have experienced expensive problems due to inappropriate flushing of consumer products. These problems include **clogged pumps, blocked screens, buildups in wastewater treatment plants, sewer blockages, an inability to effectively treat** the products prior to their release to the environment and **sewer overflows** that can impact public health and the environment. In addition, utility workers are placed at undue physical and health risk when they remove these products from mechanical equipment and raw sewage.

In September 2016, international water groups came together to develop a Publicly Available Specification (PAS) on Flushability. These criteria seek to address the key aspects of *the International Water Industry Statement on Flushability* that was released on September 22, 2016 and signed by over 250 water organizations worldwide, that to be flushable a product must:

- a) break into small pieces quickly;
- b) not be buoyant;
- c) not contain plastic or regenerated cellulose but only contain materials which will readily degrade in a range of natural environments.

To ensure that the PAS was both realistic and accepted worldwide, the specifications underwent **two rounds of public comment**. All comments received were addressed and made public, through the IWSFG website. Critical comments were received by both water and wipe manufacturing organizations. A timeline of the PAS development process is provided:



For more information about the IWSFG and to view the newly released PAS, visit our website at: <http://IWSFG.org> or contact us via email at staff@IWSFG.org

Flushability PAS Criteria

The PAS includes three sections:

- IWSFG PAS 1 – Criteria for Recognition as a Flushable Product
- IWSFG PAS 2 – Terms and Definitions for Determination of Flushability
- IWSFG PAS 3 – Disintegration Test Methods – Slosh Box

For a product to be deemed suitable for flushing down the toilet, it must meet **five criteria**:

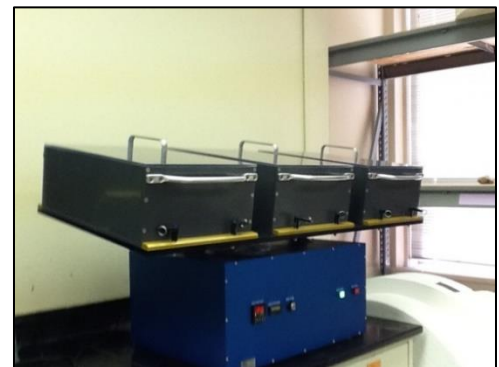
Criteria	Reference Document (with relevant acceptance criteria)
Environmental protection	TAPPI/ANSI Test Method T 401, <i>Fiber Analysis of Paper and Paperboard</i> .
Toilet and drain line clearance	As outlined in INDA/EDANA 2013, FG501: <i>Toilet and Drainline Clearance Test</i> with a modification to the acceptance criteria as noted in Section 7.2. No plunger shall be required to address blockages.
Disintegration	IWSFG 2018: PAS 3 <i>Disintegration Test Methods – Slosh Box</i> .
Settling	As outlined in INDA/EDANA 2013, FG 504: <i>Settling Test</i> .
Bio-disintegration	As outlined in INDA/EDANA 2013, FG506: <i>Anaerobic Bio-disintegration Test</i> .

IWSFG PAS v. INDA/EDANA GD4

	INDA/EDANA GD4	IWSFG PAS
Home		
Toilet & Drainline	FG501 - <i>Toilet and Drainline Clearance Test</i>	FG501 - <i>Toilet and Drainline Test</i>
Household Pump	FG503 - <i>Household Pump Test</i>	No Test
Municipal Sewer		
Disintegration	FG502 - <i>Slosh Box Disintegration Test</i>	PAS3 – <i>Disintegration Test Methods – Slosh Box</i>
Settling	FG504 - <i>Settling Test</i>	FG504 - <i>Settling Test</i>
Municipal Pump	FG507 - <i>Municipal Pump test</i>	No Test
Municipal Treatment and Environment		
Aerobic Bio-Disintegration	FG505 - <i>Aerobic Bio-Disintegration Test</i>	No Test
Anaerobic Bio-Disintegration	FG-506 - <i>Anaerobic Bio-Disintegration Test</i>	FG-506 - <i>Anaerobic Bio-Disintegration Test</i>
Fiber Analysis	No Test	TAPPI/ANSI Test Method T401, <i>Fiber Analysis of Paper and Paperboard</i>

IWSFG Slosh Box v. INDA/EDANA GD4 – FG 502

Test	INDA/EDANA GD4 FG 502	IWSFG 2018 PAS3
Pre-conditioning Step	Rinse off Lotion	Flush in Toilet and hold for 30 minutes in the drainline
Force	2 Liters of Water @ 26 rpm	4 Liters of Water @ 18 rpm
Time	60 Minutes	30 Minutes
Temperature	20°C ± 3 °C	15°C ± 1 °C
Rinse Time @ 4L/minute	120 seconds	60 seconds
Pass Criteria	60% pass through a 12.5mm sieve	95% pass through a 25mm sieve



Examples of Slosh Boxes testing samples
(Photo provided by INDA)

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