

International Water Services Flushability Group

To Whom it may concern

Please find attached summarized comments regarding the IWSFG recent release of guidelines (positioned as proposed standards). By way of some highlighted key comments on the process:

- Jacob Holm participating in the comment process does not represent an endorsement of the proposed standards.
- Jacob Holm does not accept that any wipe substrates produced by Jacob Holm have been responsible for wastewater treatment issues in the past or present.
- Jacob Holm does not believe that the use of the term Standard is warranted at this time as the test methods proposed have not been fully reviewed and vetted. Proposed Guidelines is a more appropriate term.

By way of some highlighted comments on the proposed tests themselves we would wish to highlight the following:

- We feel the criteria for recognition as a flushable product should align with the labelling Code of Practice that was jointly developed by INDA & Wastewater
- Jacob Holm does not believe that documentation or evidence has been provided to identify that regenerated cellulose represents an issue in such a wipe. In fact there are multiple studies showing the ready biodegradability of such fibers. Therefore we reject the need for regulation of content or reduction of content of such fibers.
- We have considerable concern that all three of the proposed disintegration tests proposed create a benchmark that MANY grades of commercially available toilet tissue will not satisfy. This cannot represent an acceptable test criteria. Additionally we see no evidence that would support the need to reduce the current sieve size from 12.5mm to 6.3mm

We have made multiple comments using the detailed forms provided and we hereby also provide permission that the comments made in this cover letter and in the forms can be made public.

Sincerely,

JHI America

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment <sup>2</sup>	Comments	Proposed change	Observations of the secretariat
	107-110			TE	Need clarity and some reference documentation on the statement that only natural cellulose products are OK. Sentence is confusing as written.	Clarification of sentence and add supporting reference documentation	
	127	3		GE	Should scope specifically call out solid products?	Tighten scope of the documents	
	181	6.2		TE	Are there any studies available that show how these tests correlate with one another? Will any one of the three become the preferred method in the future?	Provide study data to show correlation between the three tests	
	192-197			GE	It seems this would be a good place to reference the CoP for labeling since this has been agreed upon.	Incorporate a reference to the CoP for labeling	
	200-201			GE	The comment that IWSFG does not recognize the euphemism “dispersible” needs to be more defined. What is the intent of not recognizing the term dispersible? Does that mean it should not be used on a label or in a description of the product?	Clarify intent of statement	
	203-219			GE	Seems like this would also be a good place to reference CoP	Align document with CoP definitions for labeling non-flushable products	
	242-244			TE	What is the basis for the statement “there is apparently no reason why flushable products cannot be produced with satisfactory qualities for use and with reduced levels of this material”	Include references to support this statement or reword the sentence to merely state that it is a desire to reduce the level of regenerated cellulose fibers for environmental reasons stated	
		7.2.3		TE	States that snags can amount to 95% of the initial sample weight. Think this may be backwards and should be 5%	Review and clarify statement	

1 Adapted from the ISO/IEC Commenting template. 2 Te = Technical, Ge = General, Ed=Editorial







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	100-105			ED	Confusing – target should be 3g exactly, not “as close to as practical”.	Rewrite	
	131-134			ED	Unnecessary to suggest wastewater used in toilet	Remove note.	
	152-158			GE	Burden on laboratories to collect retail and other samples. Will certain laboratories be certified for testing?	Determine better method to collect samples for testing as well as define what labs are certified for testing.	
	171			GE	Unnecessary to state that specimens are removed “immediately”. Previously stated.	Reword	
	180-183			ED	Redundant. Stated in 5.3	Remove lines 180-183	
	184-187			GE	8.2 specifies procedure to remove wipes. Inconsistent with “tissue should not be left for any length of time”.	Reword to agree with 8.2	
	201			ED	What is periodically?	Define periodically.	
	223	9.2		GE	This has already been specified.	Remove	
	280-282			TE	How do we determine if a product has fiber-binding chemicals?	Clarify	
	284-287			GE	Calculation is unnecessary	Remove calculation.	
	289-295	11		GE	Pass fail criteria is not realistic.	Reconsider to evaluate based on calculation	
	359			ED	Bottom drain toilet is also needed.	Add appropriate image(s).	

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**IWSFG Template for Reviewer comments and IWSFG secretariat observations<sup>1</sup>**

Document reviewed: PAS 2A – Toilet Clearance

Due Date: 2017-09-01

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment <sup>2</sup>	Comments	Proposed change	Observations of the secretariat

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Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment <sup>2</sup>	Comments	Proposed change	Observations of the secretariat
	83			GE	Is this applicable in other countries?	Clarify	
	100-101			ED	Confusing. Should target exactly 3g. Not about 3g.	Rewrite	
	124-127			GE	Comment on wastewater is unnecessary.	Remove note.	
	129	7		TE	Ok if only for UK. But need additional info for other designs.	More information required.	
	137			ED	There is no photo A.1.	Add photo A.1.	
	148-153			GE	Burden on laboratories to collect retail and other samples. Will certain laboratories be certified for testing?	Determine better method to collect samples for testing as well as define what labs are certified for testing.	
	166-168			GE	Unnecessary to state that specimens are removed "immediately". Previously stated.	Removed	
	177-180			ED	Redundant. Unit size is specified in section 5.3.	Remove lines 177-180, redundant.	
	181-183			GE	8.2 specifies procedure to remove wipes. Inconsistent with "tissue should not be left for any length of time".	Reword	
	213			GE	Define "from time to time"	Specify time period.	
	235	9.2		ED	Is this conditioning or acutally part of the test?	Clarify and possibly remove Section 9.2.	
		10.2	Table 1	TE	This procedure is confusing and needs overall clarification.	Clarify.	
	280-282			ED	Are there flasks and sieves in this procedure?	Clarify.	
	289-295	11		Te	Pass criteria should be re-evaluated.	Reconsider pass % to be calculated as before.	
	293-294			GE	Percentage calculation not necessary.	Remove.	
	323-329			TE	Periodically not specific. Gradient was previously specified as 2 degrees.	Define periodically. Be consistent.	
	328-329			ED	There is no Section 6.1.		

**IWSFG Template for Reviewer comments and IWSFG secretariat observations<sup>1</sup>**

Document reviewed: PAS 2B – Drain Line Settling Test

Due Date: 2017-09-01

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment <sup>2</sup>	Comments	Proposed change	Observations of the secretariat

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Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment <sup>2</sup>	Comments	Proposed change	Observations of the secretariat
	173			Ge	Need to also reference photo A.2	Add reference to photo A.2	
	174			Ge	Equipment should not be optional. A container of some type will be needed.	Remove “optional”	
	182-188	8.1		Ge	Burden on laboratories to collect retail and other samples. Will certain laboratories be certified for testing?	Determine better method to collect samples for testing as well as define what labs are certified for testing	
	201	8.2		Ge	“Immediately” conflicts with the instructions on sample preparation above.	Clarify. Change wording.	
	212	8.3.2		Ge	Again, “immediately” conflicts with sample prep.	Remove.	
	220	8.4		Ge	The distance should be specific, not a range.	Specify distance.	
	228-229	8.4		Ge	Is there a target slope?	Specify slope.	
	233-234	8.4		Ge	The type of screen or device should be specified.	Specify device.	
	240-243	8.4		Te	How long is the entire pipe?	Specify specific pipe distance.	
	244	8.4		Ge	Approximately is ambiguous	Remove the word “approximately”	
	255	8.4		Ge	From time to time is not clear: 2% was not specified above.	Specify exact time period, clarify 2% above	
	300-310	10.2		Te	Procedure is unclear. 5 flushes or 10 flushes? Flush 1 article 5 times with water or 5 different articles?	Clarify	
	320-322	10.3		Ge	There are no flasks and sieves used per the procedure.	Remove. Replace with pipe.	
	325-332	10.4		Te	A 6.3mm sieve was not specified above. Is this the “optional” collection device? No results need to be recorded if 8 or more pass so the remaining procedure is unnecessary in this case.	Clarify that a specific sieve is needed for collection. Clarify when the calculation is needed.	
	340-346	10.4		Te	10.4 section is repeated. Should be 10.5 Calculation is not necessary to determine the percentage of specimens that exited without	Fix section heading. Clarify when calculation is needed.	

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	104-107			TE	This implies that all toilet papers pass proposed flushability tests. There is data to show otherwise.	Provide data or remove.	
	154			GE	Disagree with the sieve size for this test.	Provide data for reduction in sieve size from 12.5 to 6.3mm. Change sieve test back to 12.5mm.	
	158-164			GE	Burden on laboratories to collect retail and other samples. Will certain laboratories be certified for testing?	Determine better method to collect samples for testing as well as define what labs are certified for testing.	
	167-170			GE	Instructions are confusing. How many different rolls/packages?	Clarify	
	176-178			TE	Based on the method to get 5 different samples, samples will be exposed to ambient air for some time. Why does exposure to ambient air cause an issues?	Inconsistent with previous instructions.	
	188-189			ED	8.2 does not mention this.	Clarify.	
	191-192			ED	8.2 does not mention this.	Clarify.	
	195-197			ED	A specific size should be specified. 8.1 and 8.2 have no mention of this.	Clarify.	
	198-200			GE	Sample preparation as described will require exposure to the air for some time.	Clarify.	
	205-206			ED	What are “other products”? No mention elsewhere.	Clarify.	
	233			ED	Again, “immediately” conflicts with other instructions.	See previous comment.	
	246			TE	Possibly? Does it need to cover or not?	Clarify.	
	212, 250			Te	Does an 800rpm stirrer correctly simulate a toilet and waste water system?	Provide data to support test method.	
	254-264			ED	What if the sample isn't driven under the propeller? “Approximately 10-15cm” is ambiguous.	Provide instruction. Clarify.	
	293-294			GE	If the sample passes with 4 with no residue, then part b is unnecessary	Re-word	

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	305-313			GE	Calculation is not needed. Redundant.	Remove.	
	318-321			GE	Redundant.	Remove.	
	519			ED	Where is the shower head in the photo?	Update the photo.	
	553			ED	There is no section A.3.3 in that Annex.		

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	173	7.2 (b)		TE	Speed is half of previous test method.	Explain reasoning and provide data for proposed change.	
	180	7.3		TE	Sieve size of 6.3 mm too restrictive – what is this significant reduction in size based on?	Explain reasoning and provide data for proposed change.	
	193-197			GE	5 specimens needed. Also Instructions are unclear on how to take samples	Slosh box has 3 compartments so do groups of 3. Clarify sample procedure.	
	274-275	10.2(b)		TE	Significant change in water volume.	Explain reasoning and provide data for proposed change.	
	277-279			TE	Again, RPM target is half of current test method.	Explain reasoning and provide data for proposed change.	
	306-310	10.3(7)		TE	Again, sieve size change is restrictive, also 50% reduction in rinse time.	Explain reasoning and provide data for proposed change.	
	303	10.3		GE	Calls for several sets of pictures to be taken.	Taking pictures prior to rinsing will not show final results. Not sure pictures are necessary. Hard to store and be taken consistently by all operators.	
	324-330	10.4		GE	Not really necessary. In order to complete the testing for pass through %, you must drain the box	Remove	
	334-335	10.5		TE	Do not need to state a if b is an option.	Remove A	
	336-341	10.5 (b)		TE	Dry sample for 4-8 hours seems excessive. Pass through requirement is drastically different – 25% to 95%.	45 minute drying time at 103C should be sufficient. Provide data that pass through needs to be 95%.	
	370-373	11		TE	Overall procedure is drastically different then current.	Re-visit all of the changes: # of samples, sieve size, slosh time, amount of water, temperature, rpm, pass through requirement, additional pictures	
	626-646	A.6.2.1		GE	Drying procedure is not reasonable.	Simplify drying procedure to a specific time in the dryer.	
	647	A.6.2.1		GE	The average of 3 test results should be sufficient. Most slosh boxes have 3 boxes.	Change 5 samples to 3 samples.	

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	101-103			TE	Confirm that typical systems have a Reynolds number of 20,000. Is there significant data to support this?	Support statement.	
	138	7		GE	Disagree with the sieve size for this test.	Provide data for reduction in sieve size from 12.5 to 6.3mm/change sieve size back to 12.5mm	
	143-144			GE	Burden on laboratories to collect retail and other samples. Will certain laboratories be certified for testing?	Determine better method to collect samples for testing as well as define what labs are certified for testing.	
	152-163			GE	Instructions are confusing. How many different rolls/packages? Use immediately conflicts with samping instructions.	Clarify.	
	178-180			ED	8.1 and 8.2 do not describe the size of a MTT sample.	Clarify.	
	183-184			GE	Again, inconsistent with the sampling instructions to test immediately.	Clarify.	
	189-192			TE	What are other products?	Clarify.	
	196-197			TE	How to determine "constant speed"?	Clarify.	
	208-209	9.1		GE	Moist products will no longer have a package suitable for storage if the end is cut.	Specify the storage more clearly.	
	219-220	9.2		GE	Again, direct use is not possible with the above procedure.	Clarify in all test procedures.	
	237-239	10.2		GE	Stopping and starting over due to irregular movement is not reasonable.	Reconsider method.	
	240-241			TE	How do you determine "disintegrated completely"?	Clarify.	
	276-277			GE	If (a) is true, (b) is unnecessary.	Remove (a).	
	308-312			GE	Redundant.	Remove (a).	
	342-343			TE	How often is "periodically"?	Clarify.	
	377-388			ED	All 5 tests are to be run simultaneously? This is	Clarify in the method.	

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**IWSFG Template for Reviewer comments and IWSFG secretariat observations<sup>1</sup>**

Document reviewed: PAS 3C – Disintegration – Flask and Shaker Table

Due Date: 2017-09-01

Initials	Line number (e.g. 17)	Clause/ Subclause (e.g. 3.1)	Paragraph/ Figure/ Table/ (e.g. Table 1)	Type of comment <sup>2</sup>	Comments	Proposed change	Observations of the secretariat
					never indicated above?		
	404-407			ED	Why are different size sieves recommended? 6.3mm is specified.	Remove.	
	408-409			ED	The shower head has already been specified.	Remove.	
	486-488			ED	This bullet does not make sense.	Correct.y	
	551			ED	Shower head is not shown?	Correct photo	
	585			ED	This section does not reference how to select 10 samples.	Correct	

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	87-88	2		TE	Does this only apply to treatment plants or also other systems?	Clarify	
	140-141	6		ED	The sample size is not clear.	Clarify.	
	148			ED	There are no images of the apparatus in this document. Images should be attached to prevent any misinterpretation of the requirements.	Add appropriate photo for clarification.	
	151	7		ED	Specify exactly the pipe height and diameter	Specify.	
	177-179	8.1		GE	As above, clarity is needed on the preferred sample acquisition. Sample size?	Clarify.	
	183-184			GE	Burden on laboratories to collect retail and other samples. Will certain laboratories be certified for testing?	Determine better method to collect samples for testing as well as define what labs are certified for testing.	
	201	8.2		GE	Testing immediately conflicts with sampling procedure.	Clarify.	
	217	8.3.2		GE	Sample preparation as described will require exposure to the air for some time.	Clarify.	
	263-264			ED	Inconsistent with wording above to not remove lotion.	Clarify.	
	302			ED	What are 10a and 10b ?	Clarify.	
	315			ED	What is the 1 in "see 1 above"?	Clarify.	

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