

<b>adidas</b>	<b>Standard</b> FTW/A&G	<b>Document No</b> PHM-FW0208 PHM-AG0208 (aka GE-08)	<b>Version</b> <b>05</b>	Page: 1 / 5
				<b>Approval Date:</b> 11/04/2025
<b>Quality</b> <b>Durability</b> <b>Appearance</b>	<b>Hydrolysis Test</b>			<b>Effective Date:</b> 15/04/2025
				<b>Effective Until</b> Further Notice

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<b>Departments Affected:</b> Suppliers, 3 <sup>rd</sup> party labs, Development and Sourcing Teams			
<b>Version</b>	<b>Date</b>	<b>Modifications</b>	<b>Page</b>
03	08.11.2018	New table containing test conditions Recondition conditions for Boost added Specimen size for Boost added Matching of FW and AG method	All
04	04.04.2019	Evaluation for Boost added	All
05	02.02.2025	Harmonization FTW/A&G, format updated	All
Remarks:			

### 1 Purpose

Determination of the change of mechanical and colour properties through artificial aging at high temperature and saturated atmosphere.

### 2 Scope

All materials (leather, synthetics, textiles, polymers and finished components) according to CP.

### 3 Roles & Responsibilities

User Group	Responsibilities	Section	Detail	Link
Suppliers/ 3 <sup>rd</sup> party labs	Test Execution and Evaluation	Entire file	Required Equipment; Sample Preparation	

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Quality Teams; Material Teams; Operation Teams	Ensure Standard is executed		and Conditioning; Test Execution; Data Collection, Evaluation and Reporting.	5 ff.
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#### 4 Reference Documents/Terminology

- **DIN 53543** – Testing of Semi Rigid Polyurethane (PUR) Integral Cellular Materials
- **Satra TM344** – Hydrolysis of Polyurethane soling and Polyurethane coated materials
- **DIN EN ISO 2440** – Flexible and rigid cellular polymeric materials – accelerated ageing tests

#### 5 Specific Procedure

##### 5.1 Equipment

- Air-circulating oven or programmable humidity chamber
- Stainless steel stand
- Household-preserving jar (volume: 2l). For extended hydrolysis, a second jar is needed for testing another sample of the same material
- Demineralized water
- Heat-resistant gloves
- Dishwasher

##### 5.2 Sample

###### 5.2.1 Sampling

- One arbitrary size of test pieces, except the number and size is defined in the test method of the following test (e.g. GE-24 Flexometer Test, GE-16 Shrinkage)
- Boost specimen size: 200 mm x 100 mm

###### 5.3.1 Conditioning

Table 1 – Parameters for conditioning

Test method condition	Division	Category	Material Type	Temperature [°C]	Humidity [%]	Hours [h]
In glass or humidity chamber	FW	all	all relevant types	70 ± 2	95 ± 5	168

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In glass or humidity chamber	FW	All cleated	all relevant types	70 ± 2	95 ± 5	504
In glass or humidity chamber	FW	all	All Boost types	60 ± 2	95 ± 5	168
In glass or humidity chamber	AG	all	all relevant types	60 ± 2	95 ± 5	168
Reconditioning	AG, FTW	All	All relevant types	23 ± 2	50 ± 10	24
Reconditioning	FTW	All	All Boost types	23 ± 2	50 ± 10	168

### 5.3 Procedure

#### 5.3.2 Method A: Household-preserving Jar

**Note:** Clean jars in a dishwasher. Discard jars coated with white film on the inner surface which cannot be removed by the dishwasher. Renew the water in the glass for every new test.

1. Fix the test specimen onto a stainless-steel stand and ensure they don't touch each other. Don't test different materials at the same time in the same glass.
2. Fill the household-preserving jar with 250 ml of demineralized water and close it.
3. Heat the air-circulating oven to the requested temperature and place the jar for 1 hour in the oven.
4. Wear the heat-resistant gloves when removing the jar from the oven.
5. Open the jar and place the stand with the attached specimen into the jar. Ensure the specimen does not touch the jar or the water (see figure 1).
6. Close the jar and put it into the air-circulating oven at the requested temperature and time (see table 1).
7. Wear the heat-resistant gloves when removing the jar from the oven.

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- Re-condition the specimen according to the specified conditions (see last two lines of table 1)

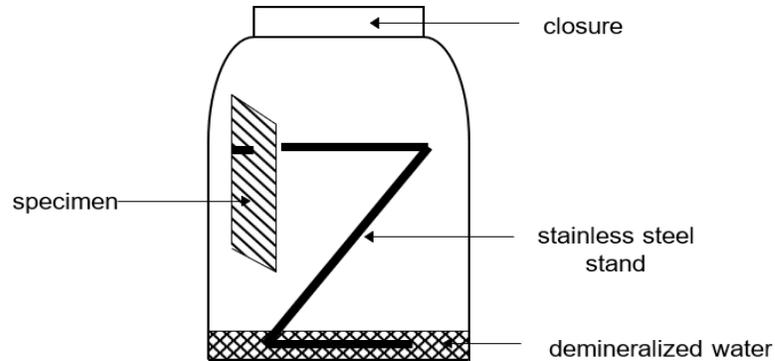


Figure 1 – Test specimen in household-preserving jar

### 5.3.3 Method B: Humidity Chamber

- Fix the specimen in a programmable humidity chamber and set it to the requested temperature and humidity (table 1). Make sure the specimen does not touch the inside of the oven.
- Close the door of the oven and leave the specimen in the oven for the requested time (table 1)
- Wear the heat-resistant gloves when removing the jar from the oven.
- Re-condition the specimen according to the specified conditions (see table 1)

## 5.4 Data Collection, Evaluation and Reporting

### 5.4.1 All Relevant Material Types

Evaluate the aged and re-conditioned specimen compared to the raw material according to the requirement of the respective material specifications in Creation Portal.

Check the specimen after the hydrolysis test on

- Appearance
- Color
- Decomposition

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5.4.2 Boost

- Check color change after 24h re-conditioning and compare it to raw material sample.
- After additional 144h re-conditioning, check again changes of the appearance of the test plate compared to the raw material.

5.4.3 Prints

- Check color change after re-conditioning and compare it to raw material sample following the requirements in creation portal.
- No delamination, no peel-off, no color change
- Sublimation print: refer to “Staining” according to ISO 105-A03

6 **Further Information**



**In all cases, the instruction manual according to the manufacturer including calibration and maintenance must be followed to ensure safety and quality.**

7 **Appendix**

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