Whitelist Addition Request Form 2027

version 1.0, 02.09.2026

Cover Sheet

The Cover Sheet must contain the following:

- **Heading “Whitelist Addition Request Form 2027”**
- **University Name and Team Name**
- **Contact details of two people responsible for this document submission**

Feel free to add your team logo and car picture to the cover page

1. **Requirements (delete this section before uploading the document):**
2. Complete all sections and tables of the White List Request Form 2027. If a section is not applicable to your design, please write 'not applicable'. Please do not delete any sections
3. Remove instructions (orange) from the document as you complete the sections.
4. Provide hyperlinks to all datasheets.
5. Make sure you are legally allowed to share the information you provide. Event organizers are not subject to any Non Disclosure Agreements nor are we able to sign any.
6. If you have question, do not hesitate to ask questions at: hydrogen@fs-world.org

Table of contents

1 Hydrogen tank

1.1 General Information

Complete the information in the table below.

Tank manufacturer	xxx
Model/name of the tank	xxx
Type of tank	I/II/III/IV
Maximum hydrogen pressure	>=350 bar
Tank capacity / H2 capacity	1 kg
Certification according to	xxx
accredited by	xxx

Table 1-1 - Hydrogen Tank Specifications

1.2 Hydrogen tank links

Please add the following links:

Datasheet of the hydrogen tank

Drawing of the hydrogen tank

Approval certificate of the hydrogen tank

1.3 Preparation for Hydrogen Tank Whitelist

Complete the information in the table below that we have a good preparation for the Hydrogen Tank Whitelist. (We will copy paste that to the Hydrogen Tank Whitelist)

Part number	Diameter (mm)	Length without OTV (mm)	Length with OTV (mm)	Weight without OTV (kg)	Water volume (l)	Hydrogen capacity (kg)
???	???	???	???	???	???	???

Table 1-3 - Hydrogen Tank Specifications

1.4 Alternative hydrogen tank certifications

This chapter has only to be filled out if your hydrogen tank is not rated to one of the standards according to the Hydrogen Rules 2027.

Please explain here how your hydrogen tank is certified to a standard equivalent to one of the standards required by Hydrogen Rules 2027 by comparing the requirements of the certification.

Orient by UN Regulation No. 134, chapter 5: Performance requirements.

Nominal Working Pressure: Minimum 35 MPa.

Section	Test	Core Description	Fulfilled by your tank?
5.1.1. Verification tests for baseline metrics	Baseline initial burst pressure	Hydraulic pressurization to burst at 20±5°C; ≥225% NWP (350% for glass fiber composite)	
	Baseline initial pressure cycle life	22,000 cycles at 125% NWP, 20±5°C; acceptance at 5,500/7,500/11,000 cycles	
5.1.2. Verification test for performance durability (sequential hydraulic tests)	Proof pressure test	150% NWP for 30 sec, hydraulic	
	Drop (impact) test	4 orientations from 1.8m: horizontal, vertical up/down, 45° angle	
	Surface damage	Saw cuts (1.25×25mm, 0.75×200mm) + 30J pendulum impacts at -40°C	
	Chemical exposure and ambient temperature pressure cycling	5 chemicals for 48h at 125% NWP, 20±5°C + pressure cycles	
	High temperature static pressure test	125% NWP at ≥85°C for 1,000 h	
	Extreme temperature pressure cycling	≤-40°C at 80% NWP (20% cycles) + ≥+85°C at 125% NWP (20% cycles)	
	Residual proof pressure test	180% NWP for 4 min, no burst	

	Residual strength burst test	Hydraulic burst; ≥80% of baseline burst pressure	
5.1.3. Verification test for expected on-road performance (sequential pneumatic tests)	Proof pressure test	150% NWP for 30 sec, pneumatic	
	Ambient and extreme temperature gas pressure cycling	500 cycles with H_2; -40°C to +85°C, 95% RH	
	Extreme temperature static gas pressure leak/permeation test	115% NWP at +55°C; measure leakage/permeation rate	
	Residual proof pressure test	150% NWP for 30 sec	
	Residual strength burst test	Hydraulic burst test	
5.1.4. Verification test for service terminating performance in fire	Service terminating performance in fire	Fire exposure; TPRD must function for controlled H_2 release	
5.1.5. Verification test for closure durability	Closure durability	Durability test for valves, TPRD, and closure devices	

Table 1-4 - Comparison Hydrogen Tank Standards

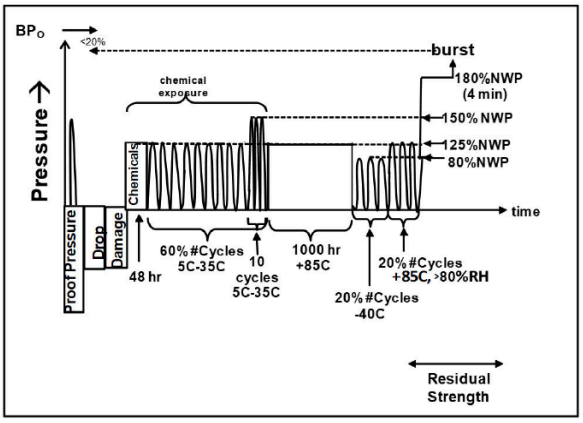
Please add the following links:

Certification standard of your hydrogen tank

Tank certification

According to FS regulations: UNGTR-13, ECE R134, HGV-2 or similar

- UN GTR 13 is the global standard for certification.
- Includes, among other things: design and performance parameters, certification tests (e.g., temperature and pressure cycles, drop test, crash test, fire resistance, burst tests, etc.)
- 11,000 pressure cycles, equivalent to 5 million km (passenger vehicle)
- Burst tests within predefined failure bands with 2.25x NWP ±10% at the end of the test



2 On Tank Device (OTD)

2.1 General information

Complete the information in the table below.

Model OTD	xxx
Manufacturer OTD	xxx
Model OTV	xxx
Manufacturer OTV	xxx
Model TPRD	xxx
Manufacturer TPRD	xxx

Table 2-1 - ON Tank Device Specifications

2.2 On Tank Valve (OTV)

Please show a datasheet for the OTV. Please explain where the OTV is mentioned in the hydrogen tank certification since both must be certified together.

2.3 Thermal Pressure Relief Device (TPRD)

Please show a datasheet for the TPRD, if not part of the OTV.