

CERTIFICATE



Czech

Registration number 11.997.342

on the approval of construction type,

issued pursuant to Directive 2010/35/EU (Government Decree No. 208/2011 Sb. (Coll.), as amended) and agreement ADR/RID:2017

for the applicant:

HPC Research s.r.o.
U Stadionu 615
CZ - 330 12 Horní Bříza
Company Registration No.: 29132908

for transportable pressure equipment:

Name: **UN composite cylinder without valve and non-UN composite cylinder without valve**
 Type: **COMPANION G2**
 Manufacturer: **HPC Research s.r.o., U Stadionu 615, CZ - 330 12 Horní Bříza**
 Drawing No.: **9524, 9556, 9506, 9563, 9554, 9567, 9366, 9561**
 Construction standard: **ISO 11119-3:2013, EN 14427:2014**
 Approval number: **CZ-11.997.342**
 Volume: **12,7 - 26,2 L**
 Test pressure: **30 bar**
 Place of manufacture: **HPC Research s.r.o., Tovární 736, CZ - 330 12 Horní Bříza**

at which the construction type assessment has been performed pursuant to Directive 2010/35/EU (Government Decree No. 208/2011 Coll., as amended).

We hereby **certify the conformity** of properties of a sample of the product at stake with the basic requirements of

Directive 2010/35/EU
 (Government Decree No. 208/2011 Sb. (Coll.), as amended)
and agreement ADR/RID:2017

Validity period: 07.03.2029

This certificate is issued for the purpose of the issue of the Declaration of Conformity of the product with the above-mentioned technical regulation.

Details and list of important parts of the technical documentation are specified in the Report on evaluation – certification of construction type No. 11.991.061 which is an integral part hereof.

Validity conditions and rules for manipulation with the certificate are specified on the second page hereof.

Prague, on 07.03.2019



on behalf of Notified Body 1017
 Pavla Nerandžičová
 Head of Certification Department

1. Range of validity

of the Certificate Reg. No. 11.997.342 issued on the basis of applying ISO 11119-3:2013 Gas cylinders of composite construction - Specification and test methods and EN 14427:2014 LPG equipment and accessories - Transportable refillable fully wrapped composite cylinders for LPG – Design and construction

Type of cylinder: **COMPANION G2** Design life: Non-limited life *) Underwater: No
 Pressure relief device: Recommended Interval of periodic inspections: 10 years (according to P200, point 9 of ADR/RID:2017)

Finished cylinder		Liner		Composite material	
Capacity:	12,7 - 26,2 (+ 0,15) L	Material:	PET	Fiber type:	E-glass
Test pressure:	30 bar	Density:	1,32 - 1,4 g/cm ³	Min. Dry Fiber Tensile strength:	450 N
Diameter:		Melting point:	245 - 250 °C	Fiber modulus:	68 - 72 GPa
Without outer case:	292 ± 2 mm	Glass transition temperature:	74 - 80 °C	Matrix Components:	Epoxy resin, Hardener, Accelerant, Diluent
With outer case:	310 ± 3 mm	Auto ignition temperature:	440 - 460 °C	Min. Tensile strength:	1400 MPa
Length:		Min. thickness:	0,15 mm	Elongation:	2,5 - 5 %
Without outer case:	(284,8 - 505,5) ± 3 mm			Thickness:	1,5 - 4,5 mm
With outer case:	(396 - 615) ± 4 mm				
Empty weight of cylinder	(3,63 ± 0,25) - (5,24 ± 0,36) kg				
Thread	25E (W 28.8) and other				
Metal End Boss					
Material		Min. Yield Stress		Min. Tensile Strength	Min. Elongation
11SMn30C EN 10227		245 MPa		360 MPa	6 %
1.4305 EN 10088-2		230 MPa		500 MPa	35 %

*) See note 2 to Article 6.2.2.1.1 of ARD/RID:2017

2. Validity conditions

This certificate is renewable upon request. The renewal is possible after the full revision and examination of conformity with the ADR/RID provisions applicable as of the date of renewal. The renewal is not permitted after the type approval is cancelled. Modifications of the existing type approval which appeared during the validity period (e.g. at pressure containers minor changes like adding other sizes and capacities which does not affect the conformity with regulations) do not extend or change the original validity of the certificate.

If the applicable ADR/RID technical requirements change during this period (including reference standards) and the approved type does not conform any more, the relevant organizations which issued the type approval shall terminate the approval and notify the type approval holder about the fact.

The TÜV SÜD Czech shall be immediately notified of any modifications of the pressure equipment compared to the certified design. This fact may cause the further continuation of the certificate dependent on an additional examination of conformity.

If the type approval expired or was cancelled, the production of the equipment according to the type approval is not allowed any more.

Necessary instructions for use and assembly shall be supplemented to every product.

Every product shall bear a visible reference to the manufacturer or importer and the type label (approval number at tanks) to enable to identify the tested type with products put into circulation.

3. Rules for the manipulation with the Certificate:

The Certificate may be used only as a certificate for products which are specified on the first page. It also applies for the use in advertising, promotional and commercial materials.

The certificate shall only be reproduced complete. It is forbidden to change, amend or rewrite data in the certificate.

An unauthorized and deceptive use of the certificate may be subject to sanctions (Section 19, Act No. 22/1997 Sb. (Coll.), as amended).

The Certificate shall not be used as a certificate for products at which a change affecting the conformity with used regulations has been done without being approved by the TÜV SÜD Czech.

The certificate shall only promote its holder, the product and production places mentioned herein.

The transmission of this certificate to third parties is inadmissible as well as its use by third parties. It may be transferred to a third party only by the TÜV SÜD Czech.

Not specified items are governed by the General Terms and Conditions for Product Certification, as amended.

4. List of relevant parts of technical documentation:

- Drawings No. 9524, 9556, 9506, 9563, 9554, 9567, 9366, 9561,
- Composite cylinder COMPANION G2 - technical documentation,
- Reports of tests according to ISO 11119-3:2013,
- Reports of tests according to EN 14427:2014.

