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AMENDMENT 1  
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**Road vehicles — Liquefied petroleum  
gas (LPG) fuel systems components —**

**Part 6:  
Pressure relief valves (PRV)**

**AMENDMENT 1**

*Véhicules routiers — Équipements pour véhicules utilisant le gaz de  
pétrole liquéfié (GPL) comme combustible —*

*Partie 6: Vannes de contrôle de la surpression*

**AMENDEMENT 1**

[ISO 20766-6:2019/Amd.1:2022](https://standards.iteh.ai/catalog/standards/sist/1c5fa027-696c-43ea-acc1-35893ad8eaa0/iso-20766-6-2019/Amd.1:2022)

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This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 41, *Specific aspects for gaseous fuels*.

A list of all parts in the ISO 20766 series can be found on the ISO website. [www.iso.org/iso/20766-6-2019-amd-1-2022](http://www.iso.org/iso/20766-6-2019-amd-1-2022)

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# Road vehicles — Liquefied petroleum gas (LPG) fuel systems components —

## Part 6: Pressure relief valves (PRV)

### AMENDMENT 1

Clause 3, add the following term entry.

#### 3.2

##### **flow capacity**

measured relieving capacity of a pressure relief valves (PRV) measured at the flow-rating pressure, expressed in m<sup>3</sup>/min of air at a temperature of 15,6 °C and at a pressure of 100 kPa

Clause 4, add the following item.

d) the flow capacity.

Clause 5, first list item.

Replace the text with the following:

— mounting location (shall communicate with the vapour phase portion of the tank); and

#### 6.1

Replace Table 1 with the following:

**Table 1 — Applicable tests**

Test	Applicable	Test procedure as required by ISO 20766-2	Specific test requirements of this document
Hydrostatic strength	X	X	X (see 6.2)
Leakage	X	X	X (see 6.3)
Excess torque resistance	X	X	
Bending moment	X	X	
Continued operation	X		X (see 6.4)
Corrosion resistance	X	X	
Operational test	X		X (see 6.5)
Vibration resistance	X	X	
Brass material compatibility	X	X	
Oxygen ageing	X	X	

**Table 1** (continued)

Test	Applicable	Test procedure as required by ISO 20766-2	Specific test requirements of this document
Non-metallic material immersion	X	X	
Ozone ageing	X	X	
Resistance to dry-heat	X	X	
Temperature cycle test	X	X	
Flow capacity test	X		X (see 6.6)

## 6.5.2, c)

Replace the text with the following:

c) Repeat a) and b) at  $-40\text{ °C}$  or  $-20\text{ °C}$  and  $85\text{ °C}$  or  $120\text{ °C}$  (if required by the operating conditions). At each test temperature, the following criteria shall be met:

## 6.6

Add a new subclause.

**6.6 Flow capacity test**

A flow capacity test on each sample is to be conducted at a flow-rating pressure of 120 % of the maximum set pressure. The measured standard flow capacity should be at least  $17,7\text{ m}^3/\text{min}$  when the pressure relief valve is considered a pressure relief device. In other cases, the minimum flow capacity shall be at least  $Q \Rightarrow 10,66 \times A^{0,82}$ ,

where

$Q$  is the flow of air in standard  $\text{m}^3/\text{min}$  (100 kPa absolute at  $15\text{ °C}$ );

$A$  is the exterior surface of the container in  $\text{m}^2$ .

During flow capacity tests on each sample, there shall be no evidence of chattering or other abnormal operating conditions.

The flow capacity of each sample of a safety valve shall fall within a range of 10 % of the highest observed capacity.

## 6.7

Add a new clause.

**6.7 Creep test**

A non-metallic part containing liquid LPG shall comply with the leakage tests mentioned in 6.3 after having been submitted to a hydraulic pressure of 2,25 times the maximum operating pressure at a temperature of  $120\text{ °C}$  during a minimum of 96 h. Water or any other suitable hydraulic fluid may be used as a test medium.

