

HIKLU

Garage fire safety instructions

Usage: For the use of external customers and rescue department personnel

Scope: The Helsinki City Rescue Department, the Eastern Uusimaa Emergency Services Department, the Länsi-Uusimaa Rescue Department and the Keski-Uusimaa Rescue Department

Approved:	Authors:	Date:	Version:
OE steering group 30 September 2020	HIKLU supervision working group	21 September 2020	1.0

Contents

GENERAL.....	3
USE OF DESIGNATED GARAGE PREMISES.....	3
STORAGE OF GOODS	4
FLAMMABLE LIQUIDS AND GASES	5
RECOMMENDED FIRST-AID EXTINGUISHING EQUIPMENT	5

General

These instructions are valid in the Uusimaa Region. The instructions have been prepared in cooperation between the Eastern Uusimaa Emergency Services Department, Länsi- and Keski-Uusimaa Rescue Departments and Helsinki City Rescue Department and repeal the previous garage instructions by the above-mentioned departments.

Garage refers in this guide to premises intended for the keeping of cars and similar motor vehicles, such as garages, carports and similar open garage facilities and car parks. *Motor vehicle* refers to any power-driven vehicle, such as a car, moped, motorcycle, tractor, light vehicle, motorised work machine, off-road vehicle or motor tricycle or light quadricycle vehicle of category L as defined in the Vehicles Act.

The instructions are based on the Rescue Act 379/2011, the Act on the Safe Handling and Storage of Dangerous Chemicals and Explosives 390/2005, the Government Decree on the Monitoring of the Handling and Storage of Dangerous Chemicals 685/2015 and the Decree of the Ministry of the Environment on the Fire Safety of Buildings 848/2017. The owner of the property may set stricter restrictions than those specified in the instructions.

Use of designated garage premises

The intended use of different premises in the building is specified in the building permit. Designated garage premises are intended for the keeping of motor vehicles, with safety arrangements specifically designed for this use. Structural requirements for garages differ in parts from those applied to other types of premises in terms of ventilation, fire compartmentalisation, structure surface materials and escape routes. Also, garages are not designed to be resistant to a chemical fire or a fire involving high fire loads. Therefore, garages cannot be used as

- residential or accommodation premises
- storage
- repair shop, workshop or hot work site
- business or assembly premises.

It is also not allowed to use an open flame or handle flammable liquids or gases in a garage (except for occasional refilling of windscreen washer fluid or engine oil, etc.).

The local building supervision authorities control that the premises are used in accordance with the intended use. If necessary, the rescue authorities may notify building supervision if they, in the course of their supervision, find that the premises are being used contrary to the intended use. Changing the intended use usually requires a change of use permit applied from the building supervision authorities.

Storage of goods

In addition to motor vehicles, garages can be used to store a trailer, caravan or service vehicle (snowblower, lawnmower, etc.).

As for storage of other items, it must always be assessed separately whether this increases the risk of a fire or other accident, impair the functionality of existing safety arrangements or makes rescue operations more difficult¹. As a general rule of thumb, if the vehicles fit easily into their designated spaces, the amount of other items is still within a reasonable level. **However, it is recommended that nothing but vehicles should be stored in a garage.**

If the above requirements are met, and storage does not increase the risk of an accident, the garage can be used to store, for example, the following:

- tools
- outdoor sports equipment, such as skis and bicycles
- tyres (recommendation: only one set of tyres per parking space)
- boat with an outboard motor on a trailer
- chainsaw, lawnmower or other small machines.

Separate restrictions that apply to the storage of flammable liquids and gases are presented below.

Electrical equipment

Electrical equipment used in a garage must be in good condition and installed and maintained in accordance with the manufacturer's instructions. Extension cords may only be used for temporary purposes. Batteries must not be charged unattended (excluding electric and hybrid vehicle batteries).

Electric vehicle batteries must be charged in accordance with the manufacturer's instructions and using chargers approved by the manufacturer. The installation of the charging equipment must be carried out by a qualified electrician (TUKES provides more information).

Insurance companies may have specific instructions on the use of electrical equipment.

¹ According to Section 9 of the Rescue Act (379/2011), the building and structure and their surroundings must be kept in such a condition that the risk of a fire, the risk of a fire being started deliberately and the risk of a fire spreading is low and, in the event of a fire or other dangerous situation arising suddenly, all persons in the building are able to leave the building or they can be rescued using other means and rescue operations can be carried out in the event of a fire or other accident and consideration has been given to the safety of the rescue personnel.

Flammable liquids and gases

Flammable liquids and gases may be stored in garages as follows²:

Subject	Flammable liquids and aerosols (e.g. petrol, oil paints, aerosol paints, detergents)	Flammable liquids with a flashpoint over 60 °C (e.g. light fuel oil and diesel oil)	Liquefied petroleum gas (LPG)
Allowed quantity	Vehicle's fuel tank + 60 l	Vehicle's fuel tank + 200 l	25 kg

Only the gases listed in the table may be stored in a garage. Flammable liquids and gases must be stored according to the instructions of the safety data sheet. Storage of liquefied petroleum gas in an underground garage is forbidden.

Restrictions on the storage of chemicals are garage-specific, not space-specific. It is easy to exceed the total allowable quantities in shared garages (e.g. car parks of housing companies). Therefore, storage of hazardous substances in shared garages is not recommended.

Recommended first-aid extinguishing equipment

In addition to the first-aid extinguishing equipment required by the building permit or the rescue authority, the owner of the building can provide additional equipment voluntarily. It is recommended that all garages be equipped with portable fire extinguishers.

A suitable extinguisher for garages is an ABC powder extinguisher containing at least 6 kg of extinguishing agent. An effective powder extinguishing agent is well suited for the first-aid fire extinguishing of vehicle fires. Powder extinguishers can also be located in premises where the temperature drops below zero.

Extinguishers should be

- located in a place where they can be easily accessed, such as in the vicinity of a door
- indicated appropriately
- kept on a wall bracket according to the manufacturer's instructions
- inspected and maintained regularly (according to the type and location of the extinguisher).

² Government Decree on the Monitoring of the Handling and Storage of Dangerous Chemicals (685/2015), Section 48