

# SSHE Newsletter 1/2018

June 2018

## 1) Checklist – Test Drives with Automated Vehicles

What have automated vehicles got to do with the Klausen Pass? All in good time. The research on automated vehicles conducted by members of ETH Zurich is on the rise and the test drives are becoming increasingly more challenging. In the past, it was about autonomous parking demonstrations at low speeds; nowadays, for instance, they involve manoeuvring at much higher speeds or driving on public roads. The highlight so far here has been the test drive by the [ARC →](#) team as part of a [focus project →](#). The team had set themselves the ambitious goal of driving an automated vehicle up a mountain pass – to the Klausen Pass mentioned at the beginning. No mean feat, and not just for the project team, but also for SSHE as this kind of undertaking is extremely relevant to safety.

In order to use the insights gained from this project for future test drives, we incorporated them into a checklist, which we compiled in conjunction with the Zurich Driver and Vehicle Licensing Office and the Federal Roads Office. It contains information on the relevant authorities that need to be contacted to obtain the necessary permits and guidelines on conducting test drives safely. The checklist is available for download on the [website →](#) of ETH Zurich's Licensing Office (Services department). It is a useful instrument for anyone who is planning test drives with autonomous vehicles – even if they are not heading for the Klausen Pass.

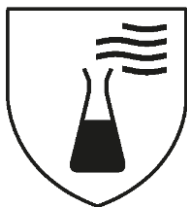
## 2) How Good Is My Protective Glove?

Anyone who has needed a chemical protective glove so far will have made sure that it corresponded to the EN 374 standard: The letters A to L indicated which chemicals the protective glove is suitable for and hence helped to make the right choice. Recently, the standard has been substantially revised.

Protective gloves are now divided into the three types A, B and C according to their resistance to permeation. Permeation refers to the process by which a chemical penetrates a material, e.g. a protective glove. The time the chemical needs to do so is the so-called penetration time. A type-A protective glove corresponds to the highest available level of protection: It has a penetration time of at least 30 minutes against at least six test chemicals. Type B, on the other hand, is only effective against at least three test chemicals. Finally, type C protects only against one test chemical providing a penetration time of at least ten minutes. Furthermore, the list of test chemicals has been extended to include six new test chemicals: nitric acid (65%), acetic acid (99%), ammonium hydroxide (25%), hydrogen peroxide (30%), hydrofluoric acid (40%) and formaldehyde (37%). Our [factsheet →](#) on "Protective Gloves" contains all the relevant changes and additional information on protective gloves.

Example:

### Type A



A protective glove labelled thus exhibits a penetration time of at least 30 minutes against at least six test chemicals: methanol (A), n-heptane (J), sodium hydroxide 40% (K), sulphuric acid 96% (L), nitric acid 65% (M) and hydrogen peroxide 30% (P).

AJKLMP

An [explanatory film →](#) on the right choice and use of *cut resistant gloves* is also available on the web.

### 3) Threat Management Congress in Helsinki



Ever since its foundation in 2008, the Association of European Threat Assessment Professionals (AETAP) has been holding an annual congress where representatives from public and private institutions swap their experiences in threat assessment. ETH Zurich has been a member of AETAP for ten years and regularly attends the congresses. The talk by American Kristina Anderson, one of the most seriously wounded survivors of the school shooting at Virginia Tech University, was one of the highlights of the congress held in Helsinki from 23 to 26 April 2018.

During this tragedy in 2007, which prompted ETH Zurich to set up a threat management programme, more than 30 people were killed and 17 others were hurt, some of them seriously. Kristina Anderson went on to found a non-profit organisation aimed at helping schools and universities to implement preventive measures and support victims.

At this year's congress, ETH Zurich had the opportunity to present the measures implemented since the initiation of threat management in 2008 in a retrospective (both from a preventive and technical point of view). The feedback we received was positive throughout.

### 4) Elevator Rescues outside Operating Hours, 17:00 – 07:00

In the daytime, the Facility Management administrative department is responsible for first response in case of elevator alarms. Outside operating hours, the staff of the Alarm Organisation's Uniformed Security Service (SiDi) are responsible for elevator rescues – however, not alone, but in cooperation with the Facility Management's on-call service. The chance that it is actually you who will get stuck in an elevator is slim: in 2017, we recorded a total of ten elevator rescues outside operating hours. Nevertheless, the possibility exists.

Only one SiDi is on site at each of the Zentrum and Hönggerberg campuses. An elevator rescue, however, requires two people: one to control the cabin, and one on site to communicate with the people trapped. To control the cabin, one must have completed a training on the elevator model in question. In other words, there may be delays in the rescue efforts, e.g. if nobody with the right training is on duty or if several incidents require interventions in different places. The Facility Management organises recurrent courses with the lift companies, which SiDi officers also attend. However, they work in shifts, which makes it difficult to attend the courses promptly. Moreover, there are a number of different elevator models at ETH Zurich, all of which require a separate training. As a result, there is no guarantee that someone who is trained in a specific elevator model will be on site around the clock. In case no trained staff is on site, the emergency desk will call out the Facility Management's on-call service. Its staff will then come to ETH as quickly as possible, yet, this will take its time. Consequently, we recommend using the stairs instead of the elevator whenever possible. You will be doing some exercise and avoiding unnecessary waiting times in the unlikely event that you actually get stuck in an elevator.

#### **Published by**

ETH Zurich, Safety, Security, Health and Environment (SSHE)

Tel. +41 (0)44 632 30 30

[www.sicherheit.ethz.ch](http://www.sicherheit.ethz.ch) →