



Safety recommendation no. 172

Date of the publication	17.05.2022
Number of the final report	2021010602
Safety deficit	<p>At around 22:20 on 6 January 2021, passenger train IC 736 travelling towards Bern passed a goods train travelling in the opposite direction on the Rothrist-Mattstetten line (NBS) near Kirchberg. A large slab of ice came off the roof of a container on the goods train and smashed through the windscreen of the passenger train's locomotive. The driver of the passenger train initiated emergency braking. The train came to a standstill after the south portal of the Rüdltigen tunnel at route km 17.2. No one was injured.</p> <p>The front windscreen of the locomotive of a long-distance train IC 736 broke as the result of impact with a sheet of ice that had come loose from the top of a container on an oncoming goods train. The following contributed to the accident:</p> <ul style="list-style-type: none">• Aerodynamic conditions caused a sheet of ice to come loose from the top of a container covered with a tarpaulin.• Force of the impact between the ice plate weighing approx. 7kg and the front windscreen of the locomotive; this was significantly higher than the standard test values because of the high additional speeds. <p>The investigation identified the following factor as a safety risk: The improper bonding of the windscreen may have contributed to the windscreen buckling into the driver's cab and ultimately to foreign objects entering the cab.</p> <p>Front windscreens are subject to strength requirements set out in the EN 15152 standard. The way in which the windscreen is attached and bonded to the driver's cab is not standardised and does not form part of a type test.</p>
Safety recommendation	<p>The STSB recommends that the Federal Office of Transport (FOT) submit the findings of this investigation to the EN 15152 standards committee so that they can be taken into account in any further developments of the standard.</p>
Addressees	Bundesamt für Verkehr
Stage of the implementation	<p>Implemented: The Federal Office of Transport (FOT) responds as follows: The FOT is not represented in the standards committee concerned. The implementation of the safety recommendation is the responsibility of third parties within the framework of the standards committee. The FOT thus has no direct influence on this standards committee when it comes to the strict implementation of the safety recommendation. In 2022 the FOT informed the Swiss Association for Standardization (SNV) about the investigation report and recommended that the report findings be considered in the next revision of EN 15152. However, the findings were not considered in the new version of EN 15152 + A1:2023. The document still does not provide any specifications on the way in which the windscreen</p>

should be attached and bonded to the vehicle.

**Investigation report concerning
the safety recommendation**

Vorbericht
Schlussbericht
