





MA



Non-reflective



Different types of retroreflective sheeting



In laboratory





ACC843 S/N 513366060

illumination (β): +5°

0.2°: 323.1cd•lx<sup>-1</sup>•m<sup>-2</sup>

0.33°: 239.2cd•lx<sup>-1</sup>•m<sup>-2</sup>

2°: 6.7cd•lx<sup>-1</sup>•m<sup>-2</sup>

valid until: 13.12.2019

# RESULTS

- The retroreflective properties decrease in the presence of:

-**hoarfrost** up to 76%\*

-**dirty** up to 64%\*

-**dew** up to 61%\*

-**fog** up to 14%\*

*\*maximal value, not for all samples*

- Based on **1,400** measurements of the calibration standard was found the change in temperature of **25°C** leads to a **10%** change in the retroreflective level

# CONCLUSIONS

- ✓ The presence of **any** type of **precipitation** on the surfaces of signs **significantly impairs** its retroreflective properties.
- ✓ There is a **correlation** between some types of **retroreflective** sheeting and the changes in **temperature** and **humidity**.



It proves **necessity** of the next **future research** to obtain true and verified information about sheeting properties.

Research of new materials with water-repellent coating.

This paper is an **impetus** for **cleaning signs** not only in the Czech Republic but in every country where these procedures are not usual during the winter season.



**THANK YOU  
FOR  
YOUR ATTENTION**