

# Focus on IFA's work

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## Testing of the non-slip characteristics of floor surfacing

### Problem

Slips, trips and falls are among the most common causes of accidents. According to statistics from the German Social Accident Insurance (DGUV), over 170,000 reportable slip, trip and fall accidents occurred in Germany in 2009. The type of floor can be assumed to be the most important factor for the avoidance of slip accidents. A suitably selected and correctly installed floor may provide adequate slip resistance even where footwear with varying slip-resistance properties is worn, and where the floor surface is soiled or wet.

### Activities

The slip-resistance properties of floor coverings are tested during type examination in accordance with BG Rule BGR 181 by walking on a ramp. In this method, which is standardized in DIN 51130, a test person walks forwards and backwards with an upright posture on the floor covering to be tested. Engine oil is applied to the floor covering. The test person wears safety footwear with a defined outsole. The inclination of the floor covering is then increased from the horizontal up to the angle at which the test person begins to lose their footing and to slip to the extent that they are no longer willing to continue walking. The angle of inclination of the ramp attained at this point is used as a measure of the slip resistance.



Test person walking on the ramp

Floor coverings are divided into five classes (R9 to R13) according to their slip resistance. Floor coverings with the assessment group R9 satisfy the lowest requirements for the slip resistance, those with assessment group R13 the highest.

## Results and Application

The test results provide manufacturers with information on the design of safe floors, and assist users (contractors, architects) in selecting suitable floor coverings. A list of approved, tested floor coverings is published and updated each year by the Institute for Occupational Safety and Health of the DGUV (IFA).

## Area of Application

Manufacturers of floor coverings; architects; German Social Accident Insurance Institutions; labour inspectorate

## Additional Information

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## Expert Assistance

IFA, Division 5: Accident prevention, Product safety

## Literature Requests

IFA, Zentralbereich