

Content

Christmas candles: Keep an eye on them

Lighting the first candles at the start of Advent not only creates a warmer atmosphere but also increases the risk of fire. DEKRA experts explain how to enjoy Advent in the soft glow of candlelight.

Driving in the fog: Poorer visibility than at night

“The visibility in fog is often poorer than at night,” warn DEKRA’s accident experts. In these conditions, it is safer to drive with headlights, use rear fog lights and fog lights as needed, and adapt one’s driving behavior.

Be aware of carbon monoxide: Ensure good ventilation

DEKRA’s experts warn that there is a greater risk of carbon monoxide poisoning during the months when the heating is running. Frequent causes are defective heating systems, the use of gas-fired patio heaters in indoor rooms, and the careless use of barbecues. What should you consider?

Further topics:

- Driving on slick roads: Don’t just rely on electronic systems
- Snow-covered vehicles: Cameras and sensors must also be cleared
- Winter check for cars: Prepared for the cold days?



*Wax candles: Self-extinguishing
candles reduce the risk of fire*

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Safety tips for using Christmas candles

Keep an eye on them

Lighting the first candles at the start of Advent not only creates a warmer atmosphere but also increases the risk of fire. DEKRA experts explain how to enjoy Advent in the soft glow of candlelight.

- **Distance:** You should ensure sufficient distance between burning candles and curtains, wreaths, decorations, or the branches of the Christmas tree to prevent them from catching fire. "A candle is hottest above the visible flame. That's why sufficient distance must always be ensured," says Volker Albrecht, an expert in DEKRA's candle laboratory. It is also important to remember that you should never leave burning candles unattended or in a room with children or pets.
- **Quality:** Candles of lower quality also present a fire risk. If low-cost raw materials such as paraffin or colorants are used, wax candles may burn too quickly or unevenly. A dripping candle or tilted wick may set fire to a nearby Advent wreath or Christmas tree.
- **Quality mark:** You should always choose quality products when buying wax candles. An indication of this is the RAL quality mark, which is based on independent testing, represented by a stylized candle icon. Additional safety is provided by candles that extinguish themselves once they have burned down. "This reduces the risk of fire," says Albrecht.
- **Ventilation:** You should regularly ventilate rooms where candles have been burning for a while, especially if they are scented candles. This reduces contamination of the air with harmful substances. There is a risk that untested products will emit higher concentrations of substances that are harmful to health – such as PAHs (polycyclic aromatic hydrocarbons), sulfur dioxide, or heavy metals.
- **Candle care:** Shorten the wick when a candle starts to produce soot. If candles flicker, it helps to trim the edge to a height of 10 to 15 millimeters. You should always consult the information provided by the manufacturer. (DEKRA Info)



*Ensure good ventilation when
using patio heaters*

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Be aware of carbon monoxide **Ensure good ventilation**

DEKRA's experts warn that there is a greater risk of carbon monoxide poisoning during the months when the heating is running. Frequent causes are defective heating systems, the use of gas-fired patio heaters in indoor rooms, and the careless use of barbecues. In 2023, 361 people died in Germany due to the toxic effect of carbon monoxide; 1,738 people were hospitalized for treatment, according to the German government's health reporting. "Although the figures are declining, there's still a need for action," says DEKRA expert Lars Inderthal. What should you consider?

- **Good ventilation:** A gas or charcoal barbecue should be used in a well-ventilated outdoor space. By contrast, use in garages could endanger lives. The combustion process produces highly toxic carbon monoxide (CO), just small concentrations of which in the air can be lethal for humans. The tricky aspect is that CO is an invisible, odorless, and tasteless gas.
- **Never indoors:** It should be ensured that no combustion gases can enter an indoor space through an open window. A gas or charcoal barbecue should never be used in a closed room. It is just as dangerous to bring a barbecue indoors to cool. The same applies to gas-fired patio heaters; these should also not be used in a closed room.
- **Heating service:** Carbon monoxide can also be emitted if gas boilers or oil heating systems are not properly serviced by qualified engineers. In particular, it should be ensured that the flue pipes of these systems are not blocked and that the combustion gases are transported to the outside. In this case, too, good ventilation must always be ensured. The same also applies to underground garages, indoor carting tracks, and shisha bars.
- **CO alarms:** Special CO alarms – not to be confused with smoke alarms – can protect against carbon monoxide poisoning. They are triggered by increased concentrations of the gas and prevent people from being surprised as they sleep. It is recommended that these alarms are installed in homes with fireplaces or with oil or gas heating systems – especially in bedrooms and corridors. In an emergency, people should leave the house immediately and call the fire department (emergency number in Germany: 112). (DEKRA Info)



*As winter approaches, it's time for
a vehicle check*

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Winter check for cars

Prepared for the cold days?

A winter-proofed car is necessary to help drivers get through the winter without incident. DEKRA experts say that being prepared avoids skidding and difficult situations in bad weather and in snow, ice, or fog.

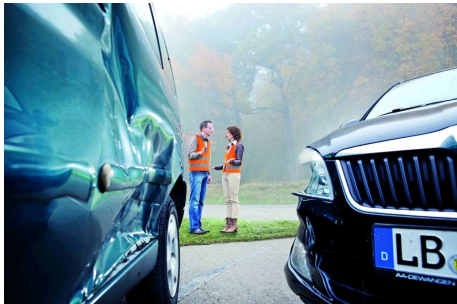
Battery OK? The battery is a car's weakest feature in winter. Even if a lead battery is new, its capacity more or less halves at minus 20 degrees Celsius. Problems starting a car in the morning and the tedious process of jump starting can be avoided by checking the battery at the start of the winter season. If there is any sign of weakness, the battery should be recharged or replaced.

Lights OK? It is essential to ensure that all lights work perfectly during the darker months. There is a Germany-wide light testing campaign each year in October. If you miss this, it is easy to check whether all your vehicle's lights are working properly with the help of a second person. Adjusting the headlights is more difficult. If your headlights are set too high, you will dazzle oncoming drivers; if they are too low, you will be unable to see properly. This can be remedied by a quick trip to the workshop or test center.

Good visibility: However, more is necessary to ensure good visibility. A clean windshield improves the driver's view, even in poor light conditions. It also stops reflections from oncoming lights, which might dazzle the driver. Also important for good visibility are windshield wipers that work properly and without smearing, as well as sufficient windshield washer fluid with antifreeze.

Winter tires: Anyone who has to drive on wintry roads should also fit winter tires. In Germany, they are mandatory in regions where drivers may encounter ice, packed snow, black ice, or frost. Cars may only be used if they have been fitted with suitable winter tires, which are marked with a symbol depicting mountain peaks and snowflakes. M+S (mud and snow) tires are no longer sufficient. Moreover, the tread depth should be at least 4 millimeters.

All equipment in place? Especially in winter, car drivers should be equipped to deal with variable weather conditions and emergencies. Blankets, drinking water, and emergency food supplies help to stay comfortable in longer traffic jams. Other useful winter accessories are ice scrapers, antifreeze, and windshield covers. If a vehicle has not been serviced for a while, a specialist winter check is also recommended. (DEKRA Info)



*In poor visibility, the rule of thumb
is that distance should equal
speed*

Driving in the fog

Poorer visibility than at night

"The visibility in fog is often poorer than at night," warn DEKRA's accident experts. In these conditions, it is safer to drive with headlights, use rear fog lights and fog lights as needed, and adapt one's driving behavior.

Low beam: German traffic regulations stipulate that, whenever visibility is severely restricted, headlights should be used on low beam – even in daytime. This applies equally in the case of fog, snow, and rain. By contrast, daytime running lights are entirely unsuitable for use in fog. In such conditions, the use of fog lights is also permitted. As soon as visibility improves, fog lights should be switched off again. However, drivers should also be aware that many vehicles with automatic headlights do not switch to low beam in fog so they must deploy the light switch themselves in such conditions.

Rear fog lights: Greater safety is provided by the correct use of rear fog lights. However, in Germany, they are only permitted in fog or if visibility is less than 50 meters (55 yards), also in built-up areas. "The brightness of rear fog lights makes vehicles more visible to following drivers in thick fog, thus reducing the risk of a rear-end collision. For this reason, they should be switched on as early as possible," explains Thomas Gut, a DEKRA accident analyst.

Reduce speed: Fog lights must be switched off again when the fog lifts and visibility increases to more than 50 meters. Their brightness may dazzle other road users and hide a vehicle's brake lights. Any infringement may result in a fine of 20 euros. It is also important to remember that a maximum speed of only 50 kilometers (30 miles) per hour is permitted if visibility is less than 50 meters. Outside built-up areas in Germany, drivers can use the roadside guide posts, which are usually set up at this exact interval, to help them navigate these situations.

Distance: When visibility is poor, another requirement is for drivers to keep their distance. "In normal visibility, the rule of thumb is that the distance should be half the speed. However, this does not apply in fog. Here, the distance must be considerably larger," says Gut. The expert recommends applying the rule of distance equals speed – at a speed of 50 kilometers per hour, the distance to the vehicle ahead should be increased to around 50 meters. (DEKRA Info)

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Remove all snow and ice before a journey: A peephole is not sufficient

Snow-covered vehicles

Cameras and sensors must also be cleared

Before any journey, all snow and ice must be removed from a vehicle's mirrors and from the cameras and radar sensors of its driver assistance systems. DEKRA's experts recall that snow covering the cameras or sensors may impair the function of emergency braking or lane-keeping assistants. The windshield, roof, hood, license plate, and lights must also be entirely free of snow – it is not sufficient to just clear a peephole. "On icy roads in winter, good visibility to all sides is more important than ever," says accident expert Luis Ancona. Any snow on a vehicle may be blown onto the windshield of the following vehicle, robbing its driver of their sight. Large amounts of snow or ice sheets falling from vans, for example, may impede or damage following vehicles. Violations may result in fines of as much as 35 euros. (DEKRA Info)



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Driving on slick roads

Slick roads: Electronic safety systems are no substitute for careful driving

Don't just rely on electronic systems

On slick roads, driver assistance systems such as ESP, automated emergency braking, or ABS are no substitute for driving carefully. "Even the best technology won't stop a car from skidding if you drive into a bend too fast," says DEKRA expert Andreas Schäuble. Although modern technology has made driving much safer, it is not a silver bullet for all situations and cannot compensate for every driving error. "It is important to adapt the way you drive to the prevailing road and weather conditions. Specifically, this means not taking risks, keeping a sufficient distance, and adapting your speed." Moreover, the electronic systems can only work properly if the tires have sufficient road contact. That is why, in Germany, it is essential to fit winter tires with the alpine symbol as required by law. (DEKRA Info)

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