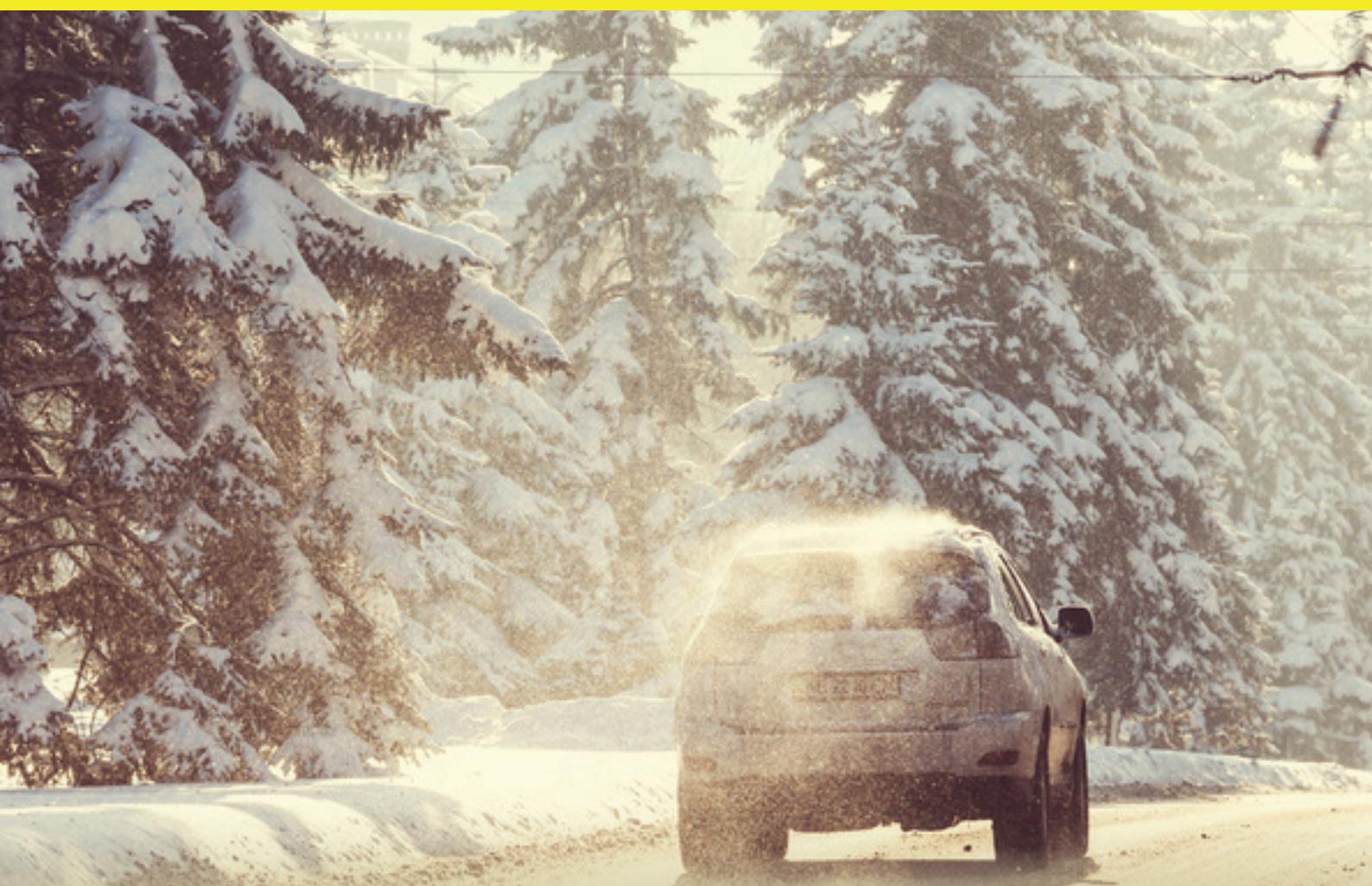


Prestone®

EXCELS IN EXTREMES



A Prestone ebook:

WINTER DRIVING



Of all the seasons, winter creates the most challenging driving conditions, and can be extremely tough on your car. Treacherous weather coupled with dark evenings can make driving hazardous, so it's vital you ready yourself and your car before the season takes hold.

From heavy rain to ice and snow, winter will throw all sorts of extreme weather your way — so it's best to be prepared. By checking the condition of your car and changing your driving style to adapt to the hazardous conditions, you can keep driving no matter how extreme the weather becomes.

To help you stay safe behind the wheel this season, here's an in-depth guide on the dos and don'ts of winter driving. From checking your vehicle's coolant/antifreeze to driving in thick fog, heavy rain and high winds — this guide is packed with tips and advice on driving in even the most extreme winter weather.

PREPARING YOUR VEHICLE FOR WINTER DRIVING

Keeping your car in a good, well maintained condition is important throughout the year, but especially so in winter. At a time when extreme weather can strike at any moment, your car needs to be prepared and ready for the worst. The following checks will help to make sure your car is ready for even the toughest winter conditions.

COOLANT / ANTIFREEZE

Whatever the weather, your car needs coolant/antifreeze all year round to make sure the engine doesn't overheat or freeze up. By adding a quality coolant/antifreeze to your engine, it'll be protected in all extremes — from -37°C to 129°C and you'll also be protected against corrosion.



What Does it Do?

Coolant/antifreeze is as important as engine oil, and if you drive without it you could cause serious damage to your engine. Even when it's cold, coolant/antifreeze helps to keep the engine cool and prevent it from overheating. When cooled properly, an engine will operate at the right temperature — maintaining fuel efficiency and regulating emissions, and ensuring it performs at its best for longer.

On those sub-zero winter nights when your poor old car is left out in the cold, coolant/antifreeze will prevent the cooling system from freezing. If you suspect the cooling system has frozen, don't start the engine; instead seek help and advice from a professional mechanic.

How Often Should I Top It Up?

Regularly checking your coolant/antifreeze level is important and we'd recommend doing a quick check every one to two weeks. Cars do lose some coolant/antifreeze naturally, so you should expect to have to top it up every so often.

If you find you have to top up the coolant/antifreeze each time you check the level, this could mean there's a leak in the system, in which case you should take the car to a professional mechanic. If you're not sure how to check your coolant/antifreeze, a Prestone Coolant/Antifreeze tester can help you to test and top up.

What's the Best Coolant/Antifreeze Concentration?

Most coolant/antifreezes are available in an easy ready-to-use format, which means you don't need to dilute it. Prestone Ready to Use Coolant/Antifreeze is a blend of 50% coolant/antifreeze and 50% water. This 50:50 mixture will protect your vehicle's engine from -37°C to +129°C, and also provides engine corrosion protection for five years or 150,000 miles.



How Do I Top Up My Antifreeze?

Start by popping the bonnet and finding the coolant/antifreeze reservoir. This is easy to identify thanks to the brightly coloured liquid inside, but if you're struggling consult the vehicle manual. Before unscrewing the cap, make sure the car is cool — coolant/antifreeze operates at around 90°C, making it extremely hazardous.

Depending on the type of coolant/antifreeze you're using, you might need to dilute it first. Opt for Prestone's Ready to Use Coolant/Antifreeze however, and you can pour it straight in.

Once you've added the coolant/antifreeze and the level sits between the min and max markings on the reservoir, firmly screw the lid back on.



CAR BATTERY

Of all the things that can go wrong with your car during the winter, battery problems are by far the most common. When temperatures drop, batteries (particularly older models) struggle to perform at their best, leading to all sorts of problems beneath the bonnet.

How Can Cold Weather Affect My Car's Battery?

Cold temperatures affect the chemicals in the battery – making it more difficult for it to produce and store electricity. This means that the battery will struggle to hold its charge, leading to a significant drop in power.

Aside from the cold weather, batteries tend to struggle in winter as we use more electrics in the car. The dark cold days mean we use our lights, heater fans, wipers and heated screens more, putting strain on the battery, and this can cause problems when starting the car.

How Can I Prevent Battery Problems in Winter?

Here are some top tips for preventing battery problems in winter:

- ▶ One of the best things to do to avoid problems is to replace the battery before winter if it's more than 5 years old. Most garages will provide a free pre-winter check-up, which will involve starting the car and checking the battery.
- ▶ Make sure you're only using the electrics you need, and always remember to turn off things like heaters, interior lights, phone chargers and sidelights before leaving your vehicle.
- ▶ We know it's tempting when it's cold to get in and put the heaters and lights on before you start the engine, but it doesn't help the battery. Switch all non-essential electrical items (stereo, lights, etc.) off before starting a cold car – this will put less strain on the battery.
- ▶ If the car doesn't start first time, don't give up! Just leave it for 30 seconds before trying again to allow the battery to recover.
- ▶ In the cold weather you might be tempted to jump in the car to pop to the corner shop for a pint of milk, but you should avoid making lots of short trips in winter. As you drive, the car charges the battery, but it needs time to add what it takes out of the car during starting. Make too many short trips, and your battery won't have time to charge fully. Group trips/errands together to give your car the time it needs to charge the battery as you drive.
- ▶ If possible, always park in a garage so as not to expose your vehicle to the extreme elements.
- ▶ If your car is going to be laid up over an extended period during winter the battery could lose charge. Consider charging it – clever battery chargers are inexpensive and the instructions are simple to follow.



TYRES

In wet, icy or snowy conditions, your car's tyres are responsible for keeping you firmly planted on the road surface. If your tyres are incorrectly inflated or in a poor condition going into winter, this will have a huge impact on how your car handles in extreme weather conditions.

How Often Should I Check My Tyres In Winter?

We recommend checking the condition and pressure of your tyres on a weekly basis not just in winter, but also throughout the year. Varying temperatures can affect the pressure of the air inside your tyres so it's a good habit to get into.

What Are Winter Tyres? Should I Buy Some?

Winter tyres are designed to provide more grip when you drive in snow. Most tyres sold in the UK are designed for the most common weather — rain, and lots of it. The tyre tread pattern is designed to shed water to keep the rubber in contact with the road and avoid aquaplaning — that's when the tyre loses contact with the road surface because there's too much water. Aquaplaning mostly happens at high speeds on wet roads, but can be avoided if the tread on your tyres is legal.

How Do I Check the Condition and Tread of My Car's Tyres?

You can tell a lot about your tyres just by doing some simple visual checks. For most drivers, the biggest thing to check for is wear. If you aren't sure how to check tyre wear, a special tread depth gauge will tell you when you need to consider buying new rubber.

The legal limit of tread depth in the UK is 1.6mm and should be measured across the tread area, but we recommend replacing tyres when the tread reaches 3mm – this ensures good performance throughout the rainy winter months. Also check for uneven wear across the tread; if your tyres are worn more on one section than another it could indicate an underlying mechanical issue. If in doubt take your car to a trusted professional.

SCREENWASH

Spray, salt and traffic dirt— just some of the substances you'll find on your car's windscreen during the winter months. To ensure maximum visibility whatever the weather, it's vital your car is always topped up with a high quality, winter-ready screenwash.

Why Is Screenwash So Important During the Winter?

Screenwash forms part of the MOT test no matter what the weather, so having plenty of it is a legal requirement. In winter there is generally more dirt on the road; this, combined with salt and road spray thrown up from cars and trucks, can seriously hinder your view. Marks on your windscreen can also cause dangerous sun dazzle, particularly when the sun is low. Winter screenwash will quickly remove dirt, prevent freezing jets and help to de-ice the windscreen when the temperature plummets during a cold snap.

What Should I Look Out for When Buying Winter Screenwash?

Check the label for the freeze protection and cleaning capability. Ideally the freeze protection should be below the minimum temperature you're likely to experience — as a rule of thumb in the UK look to buy screenwash which freezes at or below -10°C.

How Do I Check My Screenwash Level?

Most modern cars will tell you when your screenwash is running out – you'll have a light for it on the dashboard. Failing that the screenwash reservoir in your car can be found under the bonnet and the filler cap usually has this symbol on it:



Once you've located the screenwash filler cap, remove it and either check the level manually, or if it's tucked away out of sight, add screenwash until the level appears.

Remember: Don't confuse the screenwash and coolant reservoirs, they are very different and mixing them could be dangerous. If in doubt, seek expert advice.

Tip: Make sure the inside glass is also clean, use a good quality smear free car glass cleaner and clean paper towels to dry it. This can really help to reduce dazzle from the sun or oncoming headlights when driving at night.

WIPER BLADES

Topping up your car with premium screenwash is all well and good, but if your windscreen wipers are in a poor condition the solution will be effectively useless. Before driving in extreme weather, it's a good idea to check the condition and functionality of your wipers.

How Do I Check the Condition of My Car's Wiper Blades?

You can see if there's any obvious damage to your wiper blades just by looking at them, such as chunks of rubber missing or hanging off. If they are moving the water away from your field of vision, leaving the screen clear and free of smears they are probably OK. If in any doubt, seek expert advice or take your car to a garage. Wipers are usually inexpensive and easy to fit so don't pay over the odds.

DE-ICING YOUR VEHICLE

As temperatures plummet, it's highly likely you'll return to your car to find it frozen and covered in a thin layer of ice. Before you hit the road, it's vital you remove this ice to ensure complete visibility.

Here's a step-by-step guide on how to de-ice your car quickly without causing any damage to the exterior of the vehicle.

- ▶ Firstly, don't be tempted to pour boiling water over any frozen glass - the thermal shock can crack the windscreen!
- ▶ Buy a good quality de-icer with a freeze protection much lower than you need it to be. Tip: the lower the freeze protection of the de-icer, the faster it will get to work.
- ▶ Start the car and turn the heater to maximum setting with the fan on low. Take care not to leave the car unattended.

- ▶ Start the car and turn the heater to maximum setting with the fan on low. Take care not to leave the car unattended.
- ▶ Start by shifting any excess snow or heavy frost. The de-icer needs to penetrate the ice all the way to the glass, so where it's really thick, score it with a scraper.
- ▶ Now spray de-icer around the wipers — this will give it time to act and prevent damage to the rubber blades.
- ▶ Next, spray the top of the windscreen, side windows and rear screen. Gravity will do the rest, but use your judgement and spray liberally on areas where the ice is heaviest.





WINTER DRIVING TIPS

For even the most experienced motorists, winter creates hazardous conditions that require a different style of driving. Even if your car is in tip-top winter-ready condition, extreme weather can hit at a moment's notice — so you've got to be prepared to change your driving style to keep yourself and others safe.

Here we provide practical tips and advice on how to drive safely in extreme winter weather — from heavy rain and snow to fog, high winds and hail.



Driving In Snow

Keep an eye on the local weather forecast, plan your journey and avoid unnecessary smaller trips. The weather may be OK when you leave, but it could get worse so plan ahead. Be prepared by keeping a winter survival kit in the car (see below).

- ▶ Be prepared — get up 10 minutes earlier to give yourself time to de-ice the car and shift any snow or ice.
- ▶ Keep your car's fuel tank topped up. Getting stuck in extreme weather is bad enough without running out of fuel.
- ▶ Expect to take extra time to get from A to B — you're not the only one driving more cautiously.
- ▶ Make sure your car is free of snow before setting off — particularly your headlights and indicators. It's also an offence to drive with snow piled up on the roof as this can hinder the view of the cars following you.

- ▶ Slow down and avoid high speed turns. Stopping distances are 10 times longer in ice and snow, so don't tailgate the vehicle in front. Pull away gently to avoid wheel-spinning. Starting in a higher gear can help you get better grip as well.
- ▶ Hills can be a nightmare in bad weather — avoid having to stop part way up by waiting until it's clear of other cars. Keep a constant speed, choosing the most suitable gear in advance to avoid having to change down on the hill.
- ▶ On downhill slopes, slow down and use a low gear. Avoid excessive use of the brakes and leave as much room as possible between you and the car in front.
- ▶ If you have to use brakes, apply them gently and in short bursts to avoid skidding.
- ▶ If you do get stuck in the snow, straighten the steering wheel so the wheels point forwards and clear the snow from the tyres. Use a sack, cardboard or similar in front of the driving wheels to give the tyres some grip.



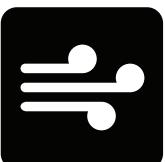
Driving In Heavy Rain

- ▶ Switch on your lights to make sure other drivers can see you coming.
- ▶ Make sure your wipers are in good condition and your windscreen washer fluid is topped up.
- ▶ Slow down — stopping distances increase in heavy rain, so try to leave at least three car lengths between you and the vehicle in front.
- ▶ Plan to take extra time as there are always more cars on the road in bad weather as commuters ditch their motorbikes and bicycles in favour of a warm, dry car.
- ▶ After driving through large puddles, test your brakes immediately to make sure the water hasn't affected them.



Driving In Fog

- ▶ Keep an eye on the weather forecast and plan your routes accordingly — expect journeys to take a little longer.
- ▶ Switch on your fog lights and slow right down — use the dipped (low-beam) headlights and not your main beam as this can reflect off the fog and impair your view. Just remember to turn them off when the fog has cleared — there's nothing worse than an unnecessary fog light!



Driving In High Winds

- ▶ As with all bad weather conditions, the golden rule is to slow down and keep it steady. If a journey is unnecessary, avoid it completely.
- ▶ A gust of wind is most likely to cause a problem on open sections of road and on high bridges. When driving in high winds, keep both hands on the wheel at all times and anticipate slight changes in direction so you can correct it.
- ▶ Trucks, caravans and high-sided vehicles can sometimes cause problems as you try to pass them and cut their slipstream — take it steady and if in doubt, slow down and keep your distance.



Driving In Ice & Hail

- ▶ Ice and hail storms can seriously impair your view of the road, but it's the same for everyone. If you can't see the vehicle in front, slow right down and pull over at the next safe and convenient place.
- ▶ Try and wait it out.



WINTER DRIVING IN-CAR SURVIVAL KIT

Getting stuck in a tailback or breaking down by the roadside is inconvenient no matter what the time of year — but it's outright unpleasant in winter. If you find yourself stranded due to a breakdown or extreme weather, there are a few things to carry in your car that will make your time that little bit more comfortable and bearable.

To help you build the ultimate winter driving in-car survival kit, here's a list of things we'd recommend carrying in your car during any winter journey — regardless of how short the drive may be.

- ▶ Ice Scraper/De-Icer
- ▶ Warm Clothes/Blankets
- ▶ First Aid Kit
- ▶ Extra Food and Drink
- ▶ Reflective Warning Triangle
- ▶ Phone Charger
- ▶ Map Book
- ▶ Torch

- ▶ Boots/Adequate Footwear
- ▶ Jump Cables
- ▶ Snow Shovel
- ▶ Snow Chains or Snow Socks (Optional depending on the extreme weather in your local area)
- ▶ Cardboard, a sack or something that you help your tyres to get extra grip if you're stuck in snow.

Whatever winter throws your way you can rely on Prestone to keep your car on the road during the worst of the winter weather. From screenwash and de-icer to coolant/antifreeze, our high performance car maintenance products are tested in all extremes, so you can rely on them in even the toughest wintry conditions.

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