

## Why Tire Sidewalls Turn Brown and How to Prevent It

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Tire sidewalls turn brown mainly because of an element added to the rubber called antiozonant. It saves tires from premature drying and cracking due to the process of oxidation. Tire browning is usually called blooming. It's a continuing process that can be prevented by thoroughly cleaning and protecting the tires.

Mold releases may contribute to the problem, but they aren't the cause of tire blooming. Silicone is also not the cause of tire browning.

### Why Antiozonant Causes Tire Sidewalls to Turn Brown

Tires bloom because antiozonant pushes its way to the outer edge of the rubber casing with time. As the element comes into contact with oxygen, it leaves a brown residue on the surface of the tire. Antiozonant is organic and helps tires last longer as it slows deterioration due to oxidation. This is what makes it possible to manufacture long-lasting high-mileage **tires that can last up to 10 years.**

The rubber structure is built in a way that allows the element to move forward to the surface, thus continually providing the material with its benefits. As a result, the tire remains pliable and UV/oxygen-resistant for a longer time.

### Mold Releases as Contributors to Tire Blooming

Mold releases used in tire manufacture don't make tire sidewalls turn brown. However, they contribute to the issue as they keep antioznant on the surface of the tire. Moreover, the more of it is left near the outer edge of the tire structure, the more the oxidation process will make it leave brown residue.

Mold releases are non-stick lubricants put in tire molds. They help release ready tires from the forms freely. Some of the lubricant usually remains on the tire, so it may contribute to blooming after just a couple of weeks of driving.

## **Silicone as a Contributor to Tire Blooming**

Tires do not bloom because of silicone-based tire dressings. Silicone is sticky, so it may allow dirt and dust to hold on to the surface of the tire as you drive, which makes tire sidewalls turn brown. The tire becomes dirty but doesn't bloom.

In this case, you can remove the color with a simple clean, using a brush and some water. Likewise, you can also remove silicone-based dressings with special degreasers and scrubbing.

## **Ways to Cope with Tire Blooming**

Thoroughly cleaning and protecting the tires are the two ways that will help you cope with tire blooming. It's best if you do both to achieve desired results.

## **Cleaning Car Tires**

Clean your tires using the following formula:

1. Dry-clean the tires and rims with a brush to remove most of the dirt and debris.
2. Rinse the tires with water. It's easier if you have a garden hose.
3. Take a special tire cleaner or create your own by adding one teaspoon of dish soap per gallon of water. Apply the cleaner and leave it for a couple of minutes or as specified in the manual for the cleaner.
4. Take a tire brush and clean every inch of the area where tire sidewalls turn brown. Move gradually to the rest of the tire. Make sure the brush isn't too harsh, as it may scratch the tire. Brushes with steel teeth may penetrate the rubber and cause **air leaks**.
5. Rinse wheels and tires with a pressure washer or a garden hose. These will help you wash off as much dirt as possible. Tire cleaners are usually environmentally friendly, so don't hesitate to allow them to flow into the yard with the water.
6. Repeat the process if necessary.
7. Dry the tires and rims with a towel.

You can watch this video for better understanding:

<https://youtu.be/dvgitAUyOZE>

**NOTE:** Make sure you don't use aggressive tire cleaners, as they may remove the outer rubber layer. Such damage won't affect performance, but it will make tire sidewalls turn brown even more.

## Tips on Tire Cleaning

- **Follow the instructions.**  
Read whether the purchased cleaner is for wet or dry tires, whether you can reapply it, etc. Also, look at the date of expiration, as most tire cleaners are usable for only 1-2 months.
- **Clean the tires and rims first.**  
Consider cleaning the tires first when washing your car. The tires are usually the dirtiest part of your vehicle, so it would be wise to clean them first so you don't splash the dirt onto a clean car later on.
- **Use a separate water bucket.**  
If you don't use a hose but a bucket with water, make sure you have a separate one for your tires. Also, take separate sponges or clean them fully before using them for your car. This is because the debris and brake dust from the tires may scratch the paint. In the same way, the stuff you use for your car may be too dirty for the tires, making tire sidewalls turn brown.
- **Avoid splashing cleaner over the rim and the car body.**  
Some cleaners can damage the paint or at least make it dull. Unless the instructions tell it's alright, try to cover the rim and the surrounding car body when spraying the substance on the tires.

## Protecting Car Tires

After cleaning, it's time for some tire protection that can be achieved in several ways:

- Using common tire dressing.
  - Water-based.
  - Solvent-based.
- Using tire wax.
- Using tire sealant.

**NOTE:** These will also help in case when after thorough cleaning you still see some bloom or white film.

## Common Tire Dressing

Tire dressing is the most common and popular form of protection when tire sidewalls turn brown. They may be:

- **Water-based.**  
These usually look like a milky liquid and contain a combination of natural oils and synthetic polymers. Many water-based coats also have special UV-protecting elements,

and they don't cause rubber degradation with time. Also, this type is the most environmentally friendly and economical.

- **Solvent-based.**

These usually have silicone as their base and look like a sticky clear liquid. They are more concentrated and create a glossy film on the tire when applied. Solvent-based dressings may contain petroleum distillate solvents that may cause premature rubber deterioration.

Dressings fill the tiny pores on the tire surface, making the tire deeper in color. There are three types of results that can be achieved: glossy, satin, and matte. The effect doesn't remain for long, and tire sidewalls turn brown again over time. This is due to the liquid ingredients and the thin layer you apply it with. If the tires are perfectly clean, you can apply 2 or more layers for a more long-lasting effect.

## **Tire Wax**

Tire waxes lubricate the tire and fill the pores with needed components. In fact, they act just like shoe waxes, even though their content is different. These need more time for application, as the tire should be not only cleaned, but also degreased. Besides, you will have to buff it off after applying and waiting.

However, waxes are easier to remove if you need it, and the effect lasts longer. If applied on dirty tires, the color will last for several days, making tire sidewalls turn brown again soon. However, if you prepare the tire and follow the instructions, it will last weeks.

## **Tire Sealant**

Sealants are the least common type of tire coating, but it is becoming more and more popular due to its long-lasting effect. It will last up to a year if you prepare the tire and apply the substance as specified in the instructions for it. Otherwise, the effect will be visible only for a couple of weeks.

A sealant is a mix of polymers created to literally cover the tire with a special coat. The substance binds tightly to the tire and becomes a flexible protector for months. Its main drawbacks are the price and the amount of work/time you will need to spend to apply it.

## **Pros and Cons of Tire Dressings**

Pros:

- They are one of the best solutions when tire sidewalls turn brown, preventing excess oxidation, cracking, and fading.
- Most dressings lubricate rubber, making it last longer. That's why they are also called rejuvenators.
- Water-based dressings are biodegradable, so there's no harm to the environment.

- Many products come in convenient sprays that are easy to apply.

Cons:

- Solvent-based dressings may get onto the car body when you drive. If it contains petroleum distillate, it may damage the paint.
- Using sprays and aerosols may damage the breaks and the rims, as it's more difficult to control where small amounts of substance go.
- In the long run, some of the coats may damage the tire, promoting cracking.

### **Importance of Regular Tire Cleaning and Dressing**

Tire sidewalls turn brown continuously, so you won't get rid of it completely. However, cleaning and protecting will prevent tire blooming or take it away temporarily if it's already there. Perform the procedures once a week (unless the tire protection suggests otherwise) to achieve the best results.

Every tire has its own predisposition to blooming. This depends on the rubber blend, the **type of the tire**, how and where you drive, etc. However, regular cleaning and protecting procedures will help you prolong the tires' life and avoid blooming.