

CONDITIONS OF USE FOR A RIM

CONDITIONS OF USE TO BE GIVEN TO YOUR CUSTOMERS

Mavic uses the most advanced technology in the design of its rims and wheels. However, a rim cannot last forever and wears down according to its use: type of riding, terrain, brake pad, spoke tension, tires, tire pressure, weather conditions, etc.

Each rim has been designed for a specific use and discipline (Road, Cross-Country, Freeride, Downhill, Touring...). Any other use of a rim for which it has not been designed is highly inadvisable, the sole responsibility of the user and voids the Mavic warranty.

Please advise your customers of the following points:

- Choose a suitable rim designed for the type of riding you wish to do: do not use a road rim on an MTB, do not use Cross Country rims to build wheels for a bike to be used for freeride, downhill...
- You must follow the instructions in this technical manual for tire pressure and sizes (see following charts);
- Respect the appropriate spoke tensions; Mavic recommends spoke tensions between 70 and 90 kg (for a front or rear wheel on the free wheel side with a crossed 3 pattern). Inappropriate spoke tension can generate too much stress and damage the rim;
- Clean the rims regularly using the Mavic soft stone (M40410);
- Remove stones and metal particles from the brake pads;
- Replace the brake pads when they are worn;
- Do not use a rim if the braking surfaces are worn, if eyelets are missing, or in any other case where safety might be compromised. The rim is a part that wears out as do brake pads, and must be replaced if it is worn (sidewall hollowed by wear, or cut out, cracked rim...);
- For rims fitted with a wear indicator (internal or external) do not continue to use the rim if the indicator appears (internal wear indicator) or disappears (external wear indicator) on at least one of the 2 braking surfaces;
- For rims not fitted with a wear indicator, use a depth gauge to check that the maximum wear on each side is not more than 0.4 mm;
- Check or have your rims checked regularly, at least at the start of each season and if possible after intensive use or if you have a doubt about spoke tension or the type of tire used. When checking, look inside (especially under the rim tape) and outside the rim. Check for signs of fatigue or wear: damage to braking surfaces, appearance or disappearance of the wear indicator (only on rims fitted with a wear indicator), cracks in the sidewalls or around the eyelets...

Following these recommendations will guarantee longer product life for the rims, maximum performance and riding enjoyment.

THE WEAR INDICATOR

Mavic has chosen to provide certain of its rim profiles that have a braking surface with a wear indicator.

2 types of wear indicator are used on our rims:

INTERNAL:

Process: The inside of the braking surface of the rim is machined on both of the wings of the rim.

Principle:

When there is too much wear on the rim, a little hole appears on each of the 2 braking surfaces of the rim. Depending on the adjustment of the brake pads, it is possible for the wear indicator to appear on only one of the 2 braking surfaces. In any case, **the appearance of the wear indicator on at least one of the 2 braking surfaces means that the sidewalls are too thin, and it could be dangerous to continue to use the rim. It should be replaced as soon as possible.**

The position of the wear indicator is marked by 2 yellow arrows on the stickers on the rim, opposite the valve hole.

Refer to the chart on the previous page to find out which rims offer this internal wear indicator.

INTEGRATED IN THE PROFILE:

Process: the wear indicator is an integral part of the rim. There is a groove on the entire circumference of the rim, at the center of the braking surface

Principle : The groove becomes more shallow as the braking wears down the surface of the rim. **Its disappearance, on one side of the rim or the other, means that the thickness of the braking surface is too thin and it could be dangerous to continue to use the rim. It should be replaced as soon as possible.**

Refer to the chart on the previous page to find out which rims offer this integrated wear indicator.

The Ceramic® coating, by preventing the braking surfaces to become hollow, can be used as a wear indicator.

RECOMMENDATION FOR MAXIMUM TIRE PRESSURE

| CROSS COUNTRY AND CROSS MOUNTAIN* | | | |
|-----------------------------------|-------|-------------------------|------------------------|
| Tire width | | Maximum pressure (bars) | Maximum pressure (PSI) |
| in " | in mm | | |
| 1,00 | 25 | 7,70 | 113 |
| 1,20 | 30 | 7,00 | 103 |
| 1,50 | 38 | 6,00 | 88 |
| 1,75 | 45 | 5,20 | 76 |
| 1,85 | 47 | 4,80 | 71 |
| 1,90 | 48 | 4,70 | 69 |
| 1,95 | 50 | 4,50 | 66 |
| 2,00 | 51 | 4,30 | 63 |
| 2,10 | 53 | 4,00 | 59 |
| 2,20 | 56 | 3,70 | 55 |
| 2,30 | 58 | 3,30 | 49 |

| EXTREME MTB* | | | |
|--------------|-------|-------------------------|------------------------|
| Tire width | | Maximum pressure (bars) | Maximum pressure (PSI) |
| in " | in mm | | |
| 2,10 | 53 | 3,70 | 55 |
| 2,20 | 56 | 3,50 | 52 |
| 2,30 | 58 | 3,30 | 49 |
| 2,40 | 61 | 3,20 | 47 |
| 2,50 | 63 | 3,00 | 44 |
| 2,60 | 66 | 2,80 | 41 |
| 2,70 | 69 | 2,70 | 39 |
| 2,80 | 71 | 2,50 | 36 |
| 2,90 | 74 | 2,40 | 34 |
| 3,00 | 76 | 2,20 | 32 |

| ROAD & TRIATHLON* | | |
|-------------------|-------------------------|------------------------|
| Tire width in mm | Maximum pressure (bars) | Maximum pressure (PSI) |
| 19 | 10,00 | 146 |
| 23 | 9,50 | 138 |
| 25 | 9,00 | 131 |
| 28 | 8,00 | 117 |
| 32 | 7,00 | 103 |

| ASPHALT* | | |
|------------------|-------------------------|------------------------|
| Tire width in mm | Maximum pressure (bars) | Maximum pressure (PSI) |
| 28 | 7,00 | 103 |
| 30 | 7,00 | 103 |
| 32 | 7,00 | 103 |
| 35 | 6,00 | 88 |
| 37 | 6,00 | 88 |
| 40 | 5,60 | 82 |
| 44 | 5,20 | 76 |
| 47 | 4,80 | 71 |
| 50 | 4,50 | 66 |

*See riding segmentation chart on page 22.

DURABILITY

A rim has 2 main functions: support the tire and serve as a brake disc.

In the course of this second function as a braking surface, rims may be subject to wear, especially from intensive or prolonged use. Rims may experience wear for reasons as diverse as the build-up of gravel or mud in the brake pads or the use of worn or poorly adjusted brake pads. These can wear down or damage the rim sidewalls, and may not be noticed by the user.

It is consequently common practise for the user to replace the rims as he would the brake pads. You must make your customers aware of this.

To reduce wear, we have developed a Ceramic coating on our top-of-the-line rims.

If the rim is heavily out of true following a violent shock, the rim should be replaced as soon as possible in order to avoid overloading or possibly broken spokes.

MAINTENANCE

Rims and brake pads must be cleaned with soap and water on a regular basis. Abrasive substances (sand...) may have been deposited during use and could scratch or cause unnecessary damage to the sidewalls of rims.

If cleaning is not sufficient on the braking surfaces, use a Mavic soft stone (M40410), except on rims designed specifically for disc brakes. Only use the Mavic soft stone, a sponge or a cloth.

If there is still grease on the rim, it can be removed with any type of solvent without risking damage to the rim (except for the Deemax rim). However, do not use any solvents in the area of the sticker or tire, as there is risk of damage to these areas.