

Sidewall Indentations in Radial Tyres

Radial Tyre construction

In a radial tyre, the carcass ply cords run across the tyre from bead to bead. The carcass fabric is joined using an overlap (a splice). Because the splice is an overlapping of two layers of carcass material, the strength in this area is higher than the rest of the tyre carcass. When the tyre is inflated, this over-lapped splice can create slight indentations in the sidewall.



Sidewall Indentation (inflated tyre)

Indentation
-carcass overlapping
area-
doubled strength due to
doubled layer of cords

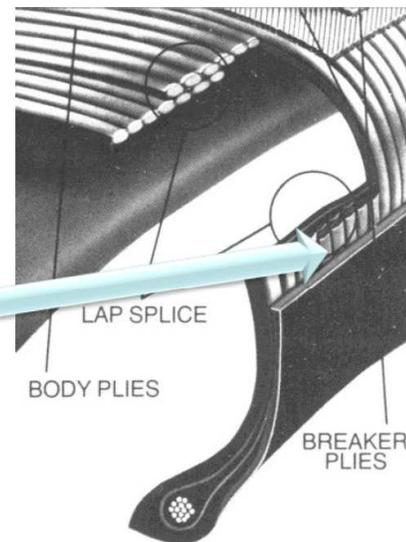


Diagram showing the carcass ply overlap

The visibility of the indentations

Sidewall indentations can occur with any type of body ply fabric. The indentation falls randomly around the tyre and can vary from tyre to tyre in the same size. The visibility of the indentation depends on different factors.

The *light conditions* which are present when viewing the tyre can be very different and accordingly have a strong effect on the appearance of the indentation.

A tyre sidewall which is *polished or wet* can accentuate the appearance of indentations.

Different tyre *sidewall designs* can also influence the visibility of indentations.



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Tyre performance

Despite their visual appearance, sidewall indentations have absolutely no effect on tyre performance. Millions of miles with millions of tyres confirm that indentations do not compromise in any way the tyre durability, ride or handling.

Inspection of indentations

If there is any doubt, then sidewall indentations should be checked by a qualified person to assure that the structural integrity and serviceability of the tyre are still intact.

If no actual unserviceable conditions are found, the tyre should remain in use.