TYRE REPAIR APPLICATION CHART OTR

VIPAL® TYRE REPAIRS

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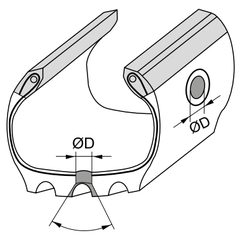
VT/VTL PATCHES - BIAS PLY OTR TYRES



OTR BIAS PLY TYRES

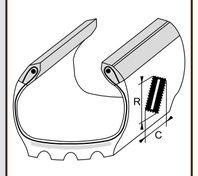
Number of plies	THROUGH THE TYRE PENETRATION – D (max.) mm											DAMAGES THAT DO NOT GO THROUGH THE TYRE – D (max.) mm				
	15	25	50	75	100	125	150	175	200	225	250	50	100	150	200	250
10_14	250	250	250	250	252	252	254	254	-	-	-	250	250	252	-	-
16_20	250	250	250	251	252	253	254	254	254	-	-	250	250	252	254	-
22_26	250	250	250	252	252	253	254	254	256	256	256	250	252	254	254	254
28_32	250	251	251	252	253	254	255	255	257	257	257	251	252	254	254	256
34_38	251	251	252	252	254	255	255	257	259	259	258/252	252	253	254	254	256
40_44	251	251	252	253	255	257	256/252	257/252	257/252	258/254	258/254	252	253	254	256	257
46_50	251	251	253	254	256/253	256/253	257/254	259/254	258/256	259/256	260/256	253	254	255	257	257
52_58	251	252	254	255	256/253	257/254	257/254	259/254	259/256	260/256	261/257	253	255	255	257	258
60_	251	252	254	256	256/253	257/255	258/256	259/256	260/257	261/257	261/257	253	255	257	259	259

"For tyres with load capacity over 40 plies, we recommend the modular application of patches (overlapping). The largest patch must always be applied first and the overlap must be with the smallest patch. (Ex.: VT 256/VT252). Overlapping is only allowed in the tread area. Piercing damages are when 50% or more of the main structure is affected (excluding protective plies). Non-piercing damages are when 25% to 50% of the main structure is affected (excluding protective plies)."

RAC - OTR RADIAL PATCHES

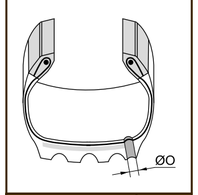
RADIAL TYRES

Rim 15 a 22.5

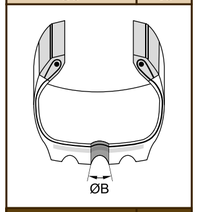


C x R (mm)	RAC
10 X 10	20
10 X 60	40
20 X 50	
10 X 90	42
20 X 70	
20 X 120	44
30 X 100	
40 X 150	46
60 X 120	

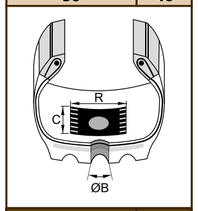
7.50 R 15
8.25 R 15
400/80 R 15
11 LR 16
10 R 16.5
12 R 16.5
9.00 R 20
10.00 R 20
10.5 R 20
12.00 R 20
14.00 R 20
14.5 R 20
16.00 R 20
16.5/75 R 20
375/75 R 20
425/75 R 20
11/80 R 20
12.5/80 R 20
13/80 R 20
275/80 R 20
335/80 R 20
425/95 R 20
24 R 21
15 R 22.5
18 R 22.5



Ø O (mm)	RAC
10	40
20	42
25	
30	46



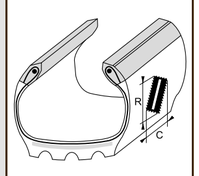
Ø B (mm)	RAC
12	20
15	40
20	25
25	42
35	44
40	35
50	46



C x R (mm)	RAC
12 X 15	20
15 X 30	40
20 X 40	25
25 X 50	42
35 X 70	44
40 X 60	35
50 X 100	46

RADIAL TYRES

Rim 24 a 25



C x R (mm)	RAC
20 X 100	44
40 X 80	
30 X 150	46
60 X 100	
40 X 250	50
60 X 180	
70 X 300	52
100 X 200	
80 X 350	56
110 X 250	

12.00 R 24
14.00 R 24
15.00 R 24
16.00 R 24
20 R 24
555/70 R 24
17/80 R 24
385/95 R 24
13.00 R 25
14.00 R 25
15.5 R 25
16.00 R 25
17.5 R 25
18.00 R 25
20.5 R 25
21.00 R 25
23.5 R 25
26.5 R 25
29.5 R 25
25/65 R 25
30/65 R 25
32/65 R 25
550/65 R 25
600/65 R 25
650/65 R 25
750/65 R 25
850/65 R 25
555/70 R 25
625/70 R 25
705/70 R 25
755/70 R 25
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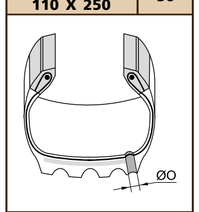
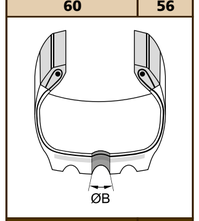
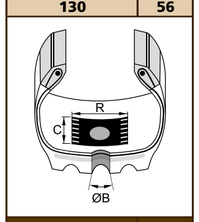
445/80 R 25
525/80 R 25
605/80 R 25
685/80 R 25
385/95 R 25
445/95 R 25
505/95 R 25



Ø O (mm)	RAC
25	44
30	46
35	50
55	52
60	56



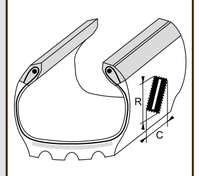
Ø B (mm)	RAC
10	20
30	44
40	35
45	46
60	50
70	55
90	52
100	65
130	56



C x R (mm)	RAC
10 X 10	20
30 X 60	44
40 X 70	35
45 X 90	46
60 X 120	50
70 X 110	55
100 X 180	52
100 X 150	65
130 X 210	56

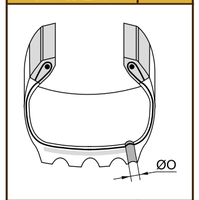
RADIAL TYRES

Rim 29 a 35

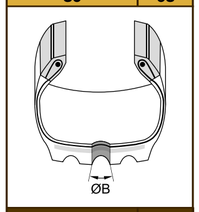


C x R (mm)	RAC
20 X 80	44
40 X 60	
30 X 150	46
60 X 100	
40 X 250	50
60 X 180	
60 X 300	52
80 X 200	
60 X 350	56
100 X 250	
100 X 400	60
120 X 300	
100 X 480	62
130 X 300	
140 X 300	68
150 X 250	

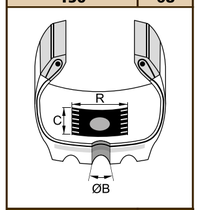
26.5 R 29
33.25 R 29
30/65 R 29
775/65 R 29
800/65 R 29
875/65 R 29
18.00 R 33
33.5 R 33
37.5 R 33
35/65 R 33
21.00 R 35
24.00 R 35
29.5 R 35
33.25 R 35
37.25 R 35



Ø O (mm)	RAC
20	44
30	46
35	50
55	52
60	56
65	60
70	62
80	68



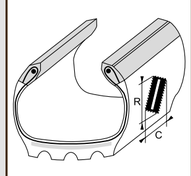
Ø B (mm)	RAC
8	20
25	44
35	35
40	46
55	50
65	55
80	52
90	65
105	56
120	75
130	60
140	62
150	68



C x R (mm)	RAC
8 X 8	20
25 X 50	44
35 X 60	35
40 X 80	46
55 X 110	50
65 X 100	55
80 X 140	52
90 X 140	65
120 X 170	75
120 X 190	56
130 X 240	60
140 X 280	62
150 X 220	68

RADIAL TYRES

Rim 39 a 63



C x R (mm)	RAC
10 X 60	44
30 X 50	
25 X 150	46
50 X 100	
35 X 250	50
50 X 180	
50 X 250	52
70 X 150	
50 X 300	56
100 X 200	
80 X 400	60
120 X 300	
80 X 480	62
120 X 350	
130 X 250	68
140 X 200	

37.5 R 39
40/65 R 39
45/65 R 39
70/65 R 39
40.5/75 R 39
45/65 R 45
24.00 R 49
27.00 R 49
31/80 R 49
30.00 R 51
33.00 R 51
36.00 R 51
50/65 R 51
27 R 56.5
37.00 R 57
40.00 R 57
44/80 R 57
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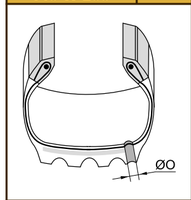
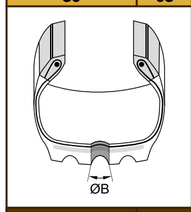
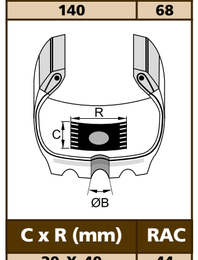
53/80 R 63
55/80 R 63
59/80 R 63



Ø O (mm)	RAC
15	44
30	46
35	50
55	52
60	56
65	60
70	62
80	68



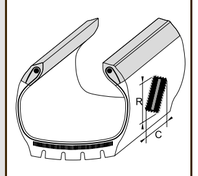
Ø B (mm)	RAC
20	44
35	46
50	50
60	55
70	52
80	65
100	56
110	75
120	60
130	62
140	68



C x R (mm)	RAC
20 X 40	44
35 X 70	46
50 X 100	50
60 X 90	55
70 X 120	52
80 X 120	65
110 X 150	75
110 X 170	56
120 X 220	60
130 X 260	62
140 X 200	68

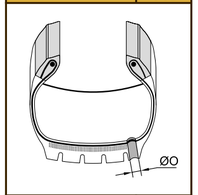
RA - OTR RADIAL PATCHES

RADIAL TYRES

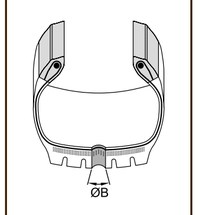


C x R (mm)	RA
50 X 570	140
60 X 450	
85 X 440	
100 X 400	160
110 X 300	
120 X 265	140
140 X 300	168
150 X 125	
150 X 250	140

30.00 - 33.00
35/65
37.25 - 37.50
40/65 - 45/65

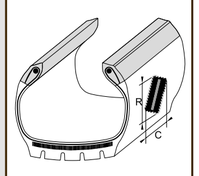


Ø O (mm)	RA
65	160
75	168
80	140



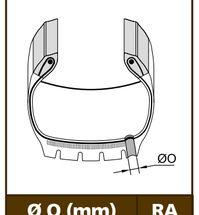
Ø B (mm)	RA
90	165
120	175
140	185

RADIAL TYRES

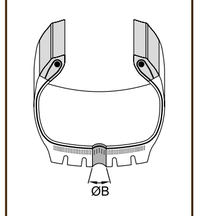


C x R (mm)	RA
25 X 540	154
35 X 400	
50 X 475	140
55 X 570	155
60 X 450	156
65 X 400	168
70 X 350	140
70 X 405	155
75 X 300	140
75 X 405	156
80 X 400	
80 X 400	160
85 X 390	155
90 X 280	140
90 X 380	156
100 X 225	140
100 X 275	155
105 X 275	156
110 X 150	160
115 X 165	140
125 X 145	
130 X 130	168
140 X 110	
150 X 125	140

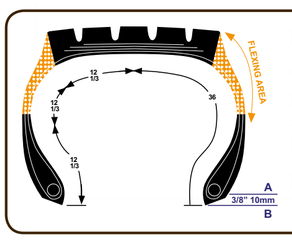
36.00 - 40.00
46/90 - 59/80
50/65 - 70/65



Ø O (mm)	RA
35	154
65	160
75	168
80	140
100	155
105	156



Ø B (mm)	RA
80	165
110	175
140	185



NOTES:

When making the repairs, the patch may not overlap the bending area, if it overlaps this area it must be replaced by another patch of a larger size.

If the patch overlaps the A-B area, the damage is considered as beyond repair.

Non-piercing damages on OTR radial tires require patch application in the following cases:

- When the damage reaches the 2nd working band (from the inside outward);
- When the damage reaches the 3rd working band with 40mm fault, consider 50% of the damage size for patch selection;
- When the tire's sidewall is affected;
- When the damage reaches the band lip, affecting more than 4 cables and/or 100mm in length.

ATTENTION!

These application charts are valid globally for Vipal repairs. The magnitude of the damages in the charts is the result of on-field experiences. The applicator must always analyze whether the tire's physical conditions allow safe repairing. Inspecting the casing is essential for checking for other non-apparent damages. Maximum limits of damages must be respected. Repairs with dimensions over the ones estimated in this chart, which may be allowed by law in some countries, are not taken into consideration here. The natural responsibility for repair quality falls to the repairman, who technically analyzes and increases these values as necessary, always abiding by the country's laws. Proper patch application and mounting methods should always be considered, as well as the tire manufacturer's repair instructions.

NOMENCLATURE

C - Circumference - Damage size measured in the direction of tire rotation.
R - Radial - Damage size measured from bead to bead (Radial) direction.
ØB - Tread - Diameter of through-the-tire penetration in the tread.
ØO - Shoulder - Diameter of through-the-tire penetrations in tire's shoulder.

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