
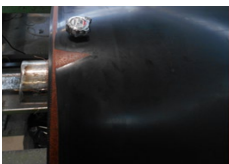
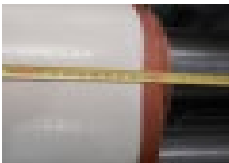







Visual Defects Criteria 2023

MacLellan Rubber recognizes that visual defects in rubber materials can be a major source of concern and conflict with customers, especially when those materials are being used in aesthetic applications or they have an impact on the finished parts being manufactured such as gaskets or wear strips.

The following document aims to define the industry norm for admissible levels of various defects that can be found on rubber sheet material, either singularly or as multiple issues. Although in the event of multiple issues it is entirely likely that the material would not pass our internal quality checks.

Acceptance / Rejection Criteria for Visual Defects in Vulcanised Rubber			
Defect Type	Image	Maximum Admissible Level in Product to be Shipped	
		Maximum Size of Defect	Maximum Number per Defined Area
Blisters or Bubbles between layers		1 cm ²	5 in 10 Lin Mtr
Pre-vulcanised - Inclusions		1 cm ²	5 in 10 Lin Mtr
Holes - Craters - Surface Pitting		1 cm ²	6 Concentrated in an A4 area
Lack of Surface Material		1 cm ²	2 in 10 Lin Mtr
Lack of Edge Material - Spongy sides		Width < 1600mm 1cm each side x 20cm in length Width > 1600mm 2cm each side x 20cm in length	1 in 10 Lin Mtr

Defect Type	Image	Maximum Admissible Level in Product to be Shipped	
		Maximum Size of Defect	Maximum Number per Defined Area
Lack of compaction / pressure in the center of material.		Not Acceptable	Not Acceptable
Fabric reinforcement visible on surface of roll		3cm x 0.5cm	2 in 10 Lin Mtr
Fabric reinforcement exposed at edge of roll		1cm on each side x 40cm in length	1 in 10 Lin Mtr
Colour change – change in shade (same rubber batch)		Acceptable in all cases	
Veined across surface		20cm x 0.2cm	3 in 10 Lin Mtr
Unburnt stearate – blooming		Less than 3m visible at 2m distance	
Puncture marks due to external pollution		0.5cm x 0.5cm	6 concentrated in an A4 area
Wrinkles in fabric surface pattern		10cm x 0.5cm	1 in 10 Lin Mtr

Whilst we recognize that any defects can impact on our customers ability to use material, we believe the above criteria provide a basis for a fair assessment in the event of any complaint, and we hope will assist customers in their understanding of when to reject material and our position in dealing with such complaints when thresholds are not met.