

Rubber Component Quality Checklist

Incoming Inspection & Acceptance Criteria

[RubberQ Technical Resources](#)

1. Visual Inspection Criteria

Defect Type	Critical Area	Non-Critical Area	Method
Flash Height	"d0.05mm	"d0.25mm	Feeler gauge
Surface Porosity	Zero tolerance	<1mm dia, max 5/part	10x magnification
Contamination	Zero tolerance	<0.5mm, max 3/100cm ²	Visual + 10x mag
Short Shot	Reject	Reject	Visual inspection
Parting Line Mismatch	"d0.08mm	"d0.13mm	Optical comparator

2. Dimensional Inspection

Dimensional inspection per ISO 3302-1 tolerance class specified on drawing. Use CMM, optical comparator, or calibrated hand tools per ASTM D3767.

- Critical Dimensions (CTQ): 100% inspection of sample
- Non-Critical Dimensions: Per sampling plan frequency
- Record all measurements on inspection report

3. Hardness Testing

Method	Standard	Sample Req.	Acceptance
Shore A Durometer	ASTM D2240 / ISO 7619-1	"e6mm thick, flat	±5 Shore A
IRHD Normal	ISO 48-2	"e2.5mm thick	±5 IRHD
IRHD Micro	ISO 48-2	"e1mm thick	±5 IRHD

4. AQL Sampling (ISO 2859-1)

Lot Size	Sample Size	AQL 1.0 Ac/Re	AQL 2.5 Ac/Re
51 - 90	13	0/1	1/2
91 - 150	20	0/1	1/2
151 - 280	32	1/2	2/3
281 - 500	50	1/2	3/4
501 - 1200	80	2/3	5/6
1201 - 3200	125	3/4	7/8

5. Physical Property Testing (PPAP/Periodic)

- Tensile Strength: ASTM D412, minimum per ASTM D2000 specification
- Elongation at Break: ASTM D412, minimum 100-500% per application
- Compression Set: ASTM D395 Method B, typically <25-35%

Specific Gravity: ASTM D297, verify correct compound