

Cleanliness analysis report to ISO 16232

TRIAL NUMBER T-2245	DATE 25 June 2021	CUSTOMER Automotive customer	ANALYST Misonics laboratory
PART Pulley (1 part)	MICROSCOPE Leica DM6 M, 5× objective	CAMERA Leica DMC2900, 0.55× C-mount	SOFTWARE Leica Cleanliness Expert

1. FILTER RESULT

Measured filter diameter	40 mm	Particles counted	1,084
Shiny (reflective)	369	Non-shiny	715
Filter occupancy	0.22%	Total fibre length	15,514 µm
Largest shiny particle	580 × 192 µm	Largest non-shiny particle	717 × 77 µm

ISO 16232 cleanliness code (all particles, Feret max): N(E10/F7/G6/H6/I4/J2/K00/L00/M00/N00)

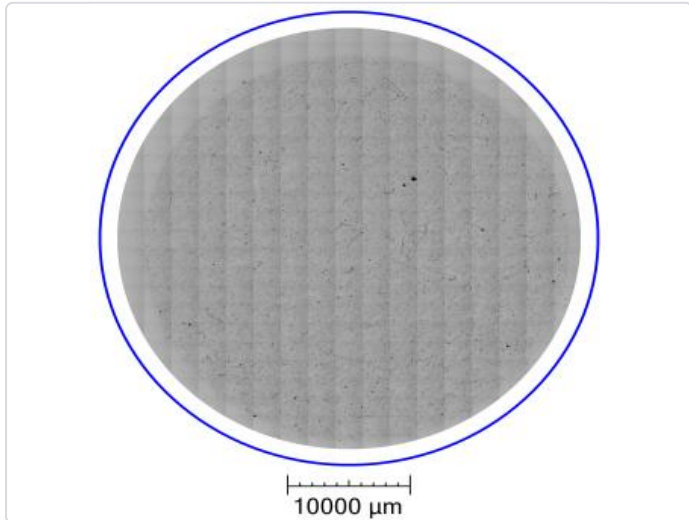
2. PARTICLE COUNT BY SIZE

Size, Feret max (µm)	Class	Particles on filter	Of which shiny
3000 and over	N	0	0
2000 to 3000	M	0	0
1500 to 2000	L	0	0
1000 to 1500	K	0	0
600 to 1000	J	3	0
400 to 600	I	10	2
200 to 400	H	46	5
150 to 200	G	41	11
100 to 150	F	117	45
50 to 100	E	855	306

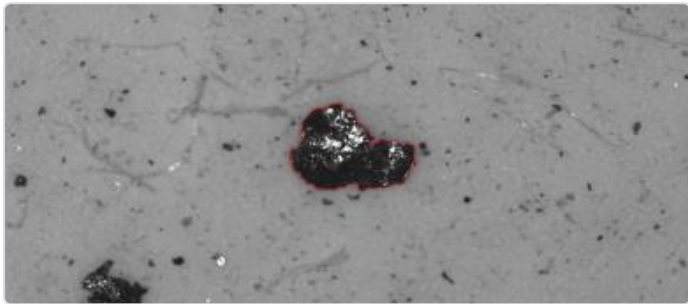
Result: **Sample pass**

The pass was judged against the customer's own acceptance limit, which was not entered in the requested-code field of the original analysis. The measured result is shown in full so it can be checked against any limit.

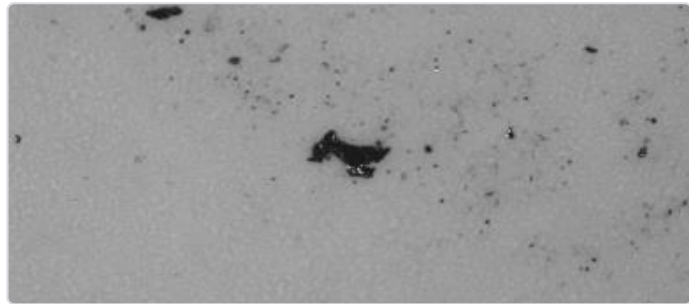
3. FILTER SCAN AND LARGEST PARTICLES



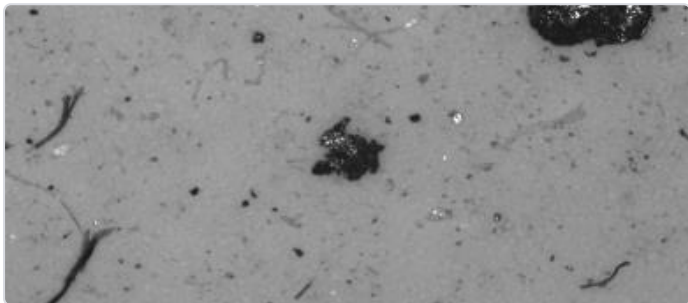
Filter membrane scan (scale bar 10,000 μm)



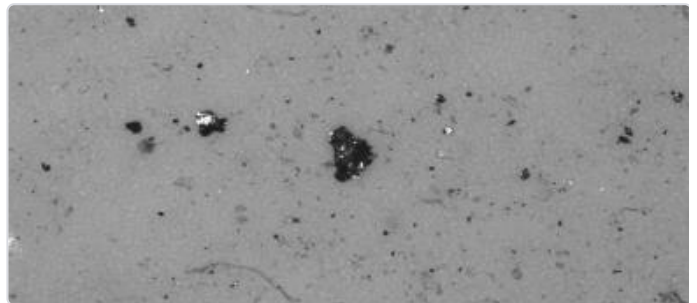
Particle 1084: 445 × 343 μm



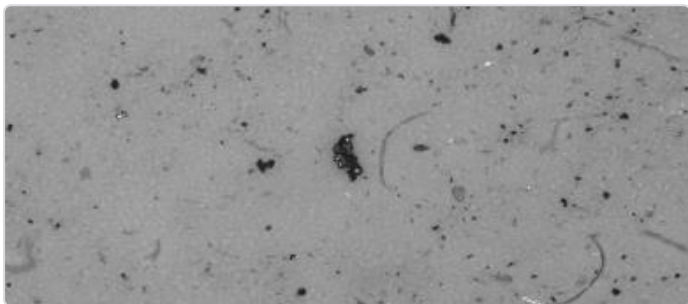
Particle 1079: 298 × 168 μm



Particle 1083: 277 × 226 μm



Particle 1082: 233 × 158 μm



Particle 1069: 199 × 96 μm

Analysis on a Leica DM6 M microscope with Cleanliness Expert software. Customer name withheld.