

TL226 INTERIOR: PAINTWORK ON MATERIAL

VOLKSWAGEN

Property / Test	Cromatipic Status	Property / Test	Cromatipic Status
Appearance		Weather resistance and aging resistance	
Colour	PASS	Sunlight simulation (240 h as per DIN 75220-D-IN1-T + tape test)	PASS
Adhesion		Corrosion resistance - 96 h NSS (DIN EN ISO 9227)	PASS
Adhesion: Cross cut + tape test	PASS	Resistance to chemicals and behaviour on exposure to abrasion	
Adhesion: St. Andrew's cross + tape test	PASS	Abrasion behaviour crockmeter (PV3906) 2.000 strokes dry, 100 strokes wet, 10 strokes: tenside, glass cleaner, naphtha, ethanol, sweat A + B	PASS
Scratch resistance: Erichsen hardness test pencil	PASS	Chemical resistance: Droplet test Aqueous solution with 0.5 volume percent tenside, Ammoniac, alcoholic, cleaning solution, Cleaner's naphtha, Methylated spirit, Synthetic sweat solution A, Synthetic sweat solution B	PASS
Thermal stability and resistance to environmental cycle test		Cream resistance: PV3964 (sun cream + hand cream)	PASS
Dimensional stability under heat in a forced-air oven	PASS	Scrub resistance: Micro-scratch resistance of high-gloss surfaces (PV3987)	PASS
Environmental cycle test - 8 cycles as per Test Specification PV 1200 (+80° C with 80 % RH to -40° C)	PASS		
Weather resistance and aging resistance			
Condensation atmosphere with constant humidity (240 h + tape test)	PASS		
Lightfastness testing (PV1303) + tape test (3, 5 and 6 cycles)	PASS		
Hydrolysis aging (72 h at (90 ±2) °C and (95 ±1) % relative humidity + tape test)	PASS		

TL528 CHROME-PLATED PLASTIC PARTS

VOLKSWAGEN

Property / Test	Cromatipic Status	Property / Test	Cromatipic Status
Appearance		Environmental cycle test	
Colour	PASS	20 cycles PV1200 (short term)	PASS
Adhesion		50 cycles PV2005 (long term) + tape test (PV2500)	PASS
Cross-cut test (St. Andrew's cross) + tape test	PASS	Corrosion resistance	
Relative peel strength DIN EN 1464 (arbitrary cases)	PASS	CASS test - 48 h	PASS
Temperature resistance and resistance to environmental cycle test		PV1200 (8 cycles) + NSS (480 h)	PASS
Dimensional stability under heat in a forced-air oven ABS/PC: 6 h at +110° C	PASS	Cr corrosion (PV1073A)	PASS
		Weather resistance - Florida simulation (PV3930)	PASS

TL52451 PAINTING OF METALLIC DECORATIVE ADD-ON PARTS FOR EXTERIOR

VOLKSWAGEN

Property / Test	Cromatipic Status	Property / Test	Cromatipic Status
Adhesion		Corrosion Resistance	
Stone chip resistance DIN EN ISO 20567-1 method B (combination with 240 h CASS)	PASS	Condensed water test, 240 h, DIN EN ISO 6270-2-CH and subsequent conditioning in ISO 554 standard climate, 23° C, 50 % relative humidity + adhesion test	PASS
Pressure washer test PV1503	PASS		

METALLIC DECORATIVE COATINGS ON PLASTIC PARTS

RENAULT

Property / Test	Cromatipic Status	Property / Test	Cromatipic Status
Adhesion		Weather resistance and aging resistance	
Cross-cut adherence CDC 47 03 005 / - E §4,4,1 ISO 2409 Grid to use: 1 mm	PASS	Aging / durability to heat: CDC 47 03 005 / - E §4,2,1 D47 1165-D-7 (85° C) - Appearance Visualization of Chrome by handling the part.	PASS
Thickness		Moisture aging CDC 47 03 005 / - E §4,2,2 D47 1165-R-3 - Appearance Visualization of Chrome by handling the part.	
Thickness - Paint & Cr CDC 47 03 005/-E §4,5 1522 - Method A	PASS	Thermal stability and resistance to environmental cycle test	
Weather resistance and aging resistance		Thermal Shock Resistance CDC 47-07-001 / - H §3,1,1 D25 1324 - Aspect Visual adhesion of Chrome by handling the part.	
Holding, aging and durability with light-heat CDC 32 04 033 / - J §4.4.1 D47 1431 - Resistance: 150 hr Ageing: 300 hr Durability: 600 hr	PASS	Corrosion	
Rub resistance and cleaning agents CDC 32 04 033 / - J §4.4.3 D45 1010-Dry condition, with water, ethanol water:50 strokes	PASS	Corrosion test CDC 47 07 001/H D23 1001 - Pendant 24 h	

TECHNICAL VALIDATION PLAN FOR COATING BY VACUUM METALLISING

PSA

Property / Test	Cromatipic Status	Property / Test	Cromatipic Status
Colour		Weather resistance and aging resistance	
Colour Evaluation in a Light Chamber D15 1343 - No visual Colour change.	PASS	Resistance to the hydrolysis, Stripe with the Sclerometer according to testing method D45 5523 ≥ 10 N (80° C \pm 2° C, 80 % \pm 5 % RH, 96 h) - D24 5421	PASS
Adhesion		Combustibility	
Crosshatch (D25 1075), St. Andrew's cross (D25 5001)	PASS	Combustibility - D45 1333 After 100 h at 40° C and 95 % RH	
Thermal stability and resistance to environmental cycle test		Abrasion resistance	
Water Immersion (D27 1327) 95 h/40° C \pm 2° C with D25 1075	PASS	Wear resistance CROCKMETER (D45 1010) 50 strokes dry, 10 strokes: soap, ethanol, heptane	
UV ageing (2) D47 1431	PASS	Scratch resistance (Sclerometer test) - D45 5523 No Scratch until 10N	
Climatically ageing resistance - D47 1309 (-20° C to +100° C) - 4 AFA and 18 cycles BFA No Aspects change and note dimensional change.	PASS	Cream resistance	
Weather resistance and aging resistance		Behaviour with the cream for the hands + behaviour with the sun cream - D23 5201 Newton according to the D45 5523 Method NO Scratch until 10N	
Fogging test - D45 1727 3 h at 100° C, No droplet, no deposit, no coloured crystals	PASS		
Water Immersion. D27 1327 - 72 h and 40° C Adhesion with Cross-Hatch based on D25 1075	PASS		

METALLIZED INTERIOR DECORATIVE COMPONENTS

GENERAL MOTORS

Property / Test	Cromatipic Status	Property / Test	Cromatipic Status
CASS - 48 h	PASS	Sun & Bug Resistance GMW14797 table A4	PASS
Gravelometer + QTC + CASS GMW14700 Method B + 48 h CASS	PASS	Quick thermal cycle -40 -> 90° C (4 cycles)	PASS
Xenon (interior) GMW14162 Method D 1240 kJ/m ² + 24 h humidity + tape adhesion	PASS	Oven aging 168 h, 85° C, 1 h recovery, 24 h humidity + tape adhesion	PASS
Xenon (exterior) 3500 kJ + 96 h humidity + tape adhesion	PASS	Rain X + thermal shock GMW16585 section 3.2	PASS
Humidity + Tape adhesion 240 h, ~100 % humidity	PASS		