

Product specific requirements: 204. Vaccum Cleaner

Version: 4.0
Last update: 06.04.2022

Material	Products	Remark
-	Vaccum Cleaner	-

No	Parameter	Method	Reference	Requirement
Safety				
1	LVD	-	Low Voltage Directive 2014/35/EU EN 60335-1 EN 60335-2-2 EN 62233	Have to fulfill requirements
2	EMC	-	EMC Directive 2014/30/EU EN 55014-1 EN 55014-2 EN 61000-3-2 EN 61000-3-3	Have to fulfill requirements
3	ErP	-	Eco-design Directive 2009/125/EC (Erp) (EU) No 666/2013 (EC) No 1275/2008 (EC) No 801/2013 Regulation 2016/2282/EU	Have to fulfill requirements
4	Energy Labelling	-	Energy Labelling Directive 2010/30/EU (Erp) Regulation 2017/254/EU	Have to fulfill requirements
Chemical Requirements				
5	WEEE	-	Directive 2012/19/EU EN 50419	Have to fulfill requirements
6	RoHS	-	Directive 2011/65/EU amended by EU directive 2015/863	Have to fulfill requirements
7	PAHs	-	REACH regulation 1907/2006/EC Annex XVII Entry 50 ((EU) 1272/2013)	Have to fulfill requirements
8	PAHs	-	AFPS GS 2019:01 PAK	Have to fulfill requirements
9	REACH SVHC	-	Regulation 1907/2006/EC	Have to fulfill requirements
10	SCCP	-	POPs Regulation (EU) 2019/1021 and its amendments	Have to fulfill requirements
Performance Requirements				
11	Durability	Actual Use	-	Switch test Test preparation: Set rated voltage; Pre-condition the sample; Set maximum setting of the operation switch. Test cycle Press all of the switch at a frequency of 6-10/Min Rating(cycles): Very Good ≥ 2000 Good ≥ 1600 Satisfactory ≥ 1200 Sufficient ≥ 600 Poor < 600
12	Durability	Actual Use	-	Cable rewriter Test preparation: Pull out 90% of the cord length Press cord rewriter button to rewind cable; Test cycle Press the cord rewriter button at a frequency of 6-10/Min (pull out 3-5 sec; press button 3-5 sec) Rating(hours): Very Good ≥ 2000 Good ≥ 1600 Satisfactory ≥ 1200 Sufficient ≥ 600 Poor < 600

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13	Durability	Actual Use	-	Motor Test preparation Set rated voltage Adjust the airflow reduced to half its maximum value Precondition the sample Test cycle Switch on: 14.5 min -Switch off: 0.5 min Required overall test time Rating [hours] very good: ≥ 500 h good: ≥ 400 h satisfactory: ≥ 300 h sufficient: ≥ 200 h poor: < 200 h
14	Durability	Actual Use	-	Hi-pot test after load life test Test preparation This test is for safety review, and the detail as below: 3000V/1m (100mA) for reinforced insulation 1250V/1m (100mA) for basic insulation
15	Durability	Actual Use	-	Test result analysis After test, the test units must be torn down for checking. Pay attention to the heating element and switch.
16	Durability	Actual Use	-	Corrosion resistance Test requirement According to EN ISO 6270-2: 2005 Test atmosphere is AHT, which is condensation atmosphere with alternating air temperature Test 5 cycles. Check for corrosion
17	Function Test	Actual Use	-	Function check The test procedures and measurements shall be carried out under the following conditions: Temperature: (23 ± 2) °C; Relative humidity: (50 ± 5) %; Air pressure: 86 kPa to 106 kPa. Unless otherwise stated, measurements shall be carried out at rated voltage with a tolerance of ± 1 % and, if applicable, at rated frequency. Prior to the first test on a new vacuum cleaner it shall be kept running with unrestricted air flow for at least 2 h to ensure adequate running-in. For active nozzles, the agitation device shall be running but not in contact with the floor. Material and tools acc. Appendix 2: List of testing materials
18	Function Test	Actual Use	-	Air data Test preparation Reference to EN 60312-1: 2017, cls. 5.8 q is the air flow, in litres decimetres per second (l/s); h is the vacuum, in kilopascals; P1 is the input power, in watts; P2 is the suction power, in watts; η is the efficiency, in per cent.
19	Function Test	Actual Use	-	Dust removal from carpets Test preparation According to EN 60312-1: 2017 cls. 5.3 Dust removal ability on carpet:
20	Function Test	Actual Use	-	Dust removal from hard floors with crevices Test preparation According to EN 60312-1: 2017 cls. 5.2 Dust removal ability on hard floors with crevices:
21	Function Test	Actual Use	-	Energy consumption Test preparation Reference to COMMISSION REGULATION (EU) No 666/2013 of 8 July 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to co-design requirements for vacuum cleaners Reference to COMMISSION DELEGATED REGULATION (EU) No 665/2013 of 3 May 2013 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of vacuum cleaners EN 60312-1: 2017 Annual Energy Consumption [kWh/yr]:
22	Function Test	Actual Use	-	Dust removal from hard flat floors Test preparation According to EN 60312-1: 2017, cls. 5.1 Dust removal ability on hard flat floors [%]:

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No	Parameter	Method	Reference	Requirement
23	Function Test	Actual Use	-	Water removal from hard floor <u>Test preparation</u> Spread tap water 2000 ml into a volume of 800x550x50 cm wooden trough. Select the wet floor nozzle to clean the trough. Weigh the wooden trough before sucking and then again after sucking. Calculate the water removal ability
24	Function Test	Actual Use	-	Maximum usable volume of the dust receptacle <u>Test preparation</u> ☐ According to EN 60312-1: 2017, cls. 5.7 Dust bag capacity [l]:
25	Function Test	Actual Use	-	Maximum usable capacity of cleaning liquid dispensing tank <u>Test preparation</u> The vacuum cleaner shall be equipped with a clean water container and placed in its normal position of operation. Measure the mass of 100 ml of tap water to determine its density prior to feeding into the vacuum cleaner. Weigh the water container before feeding and then again after feeding. The difference divided by the density determines the volume. Water container capacity [l]:
26	Handling	Actual Use	-	Unpacking / assembly Check the suitability and convenience for unpacking and assembly the sample.
27	Handling	Actual Use	-	Switch/Buttons On/off switch Cord rewriter button
28	Handling	Actual Use	-	Regulator Mechanical / Electrical / Infrared Control on the body of the sample / control on handle
29	Handling	Actual Use	-	Radius of action Record radius of action
30	Handling	Actual Use	-	Telescopic Tube Plastic / metal Record diameter and length
31	Handling	Actual Use	-	Hose Record diameter and length
32	Handling	Actual Use	-	Clean Head Plastic / metal Plate Passive / active
33	Handling	Actual Use	-	Air flow slider Indicate the scale or not
34	Handling	Actual Use	-	Accessories Record the length of power cord. Check if it is long enough when using
35	Handling	Actual Use	-	Connections Vacuum cleaner – Hose Hose – Tube Tube – Nozzles
36	Handling	Actual Use	-	Tube holder for parking or storage Parking hook Storage hook
37	Handling	Actual Use	-	Dust indicator Record Colour
38	Handling	Actual Use	-	Dust cavity lid lock
39	Handling	Actual Use	-	Wheels
40	Handling	Actual Use	-	Weight / Balance
41	Handling	Actual Use	-	Maintenance / Care
42	Finishing	In-House Method	-	Housing Marking Switch / Buttons Control panel Lid Container Heating element Accessories Power cord Check the workmanship and type of the product.

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No	Parameter	Method	Reference	Requirement	
Instruction manual					
43	Instruction manual	In-House Method	DIN EN 82079-1:2013-06 DIN EN 60335-2-2 DIN EN 82079-1:2018	Product identification	<ul style="list-style-type: none"> Check for : <ul style="list-style-type: none"> - Type - Description - Technical data - Address of Retailer / Distributor / Manufactu
				Safety instruction	<ul style="list-style-type: none"> - All safety instructions acc. safety standard are included - Additional instructions by manufacturer - Hazards from special features - Explanation of symbols / pictograms - Information in case of emergency
				Information for use	<ul style="list-style-type: none"> -Intended purpose of use, features, ranges of adjustment - Intended use - Forbidden and not intended use
				Installation / assembly	Unpacking, checking, assembling, installation, transport
				Putting into operation	<ul style="list-style-type: none"> - Safety warning before each operation step - Putting into operation - Explanation and assembly of accessories - Explanation of controls
				Performing work process	Performing work process
				End work process	Ending work process
				Care / maintenance	<ul style="list-style-type: none"> - User maintenance - Type / consumption / quantity of auxiliary supplies - Maintenance by service centre - Cleaning and lubrication - Storage / abandonment
				Troubleshooting	Checklist
				Guarantee / service	<ul style="list-style-type: none"> - Warranty declaration - Service address / reachability - Spare parts list - Recycling / proper disposal information appliance - Recycling / proper disposal information packaging
				Layout	<ul style="list-style-type: none"> - Page size / paper quality - Binding - Height of characters - Line spacing and length - Colour / Black & White - Photos / sketches - Drawings / tables
				Language / grammar	<ul style="list-style-type: none"> - Comprehensibility - Correctness of grammar / spelling - Language checked