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Translucent Silicone Food Quality – 60° shore WJ14304

FDA 21 CFR No: 177 – 2600 & EU1935/2004 regulations and USP Class V1 Compliant

PROPERTIES	TEST METHOD	VALUES FPS UNITS	TEST METHOD	VALUES METRIC UNITS
SPECIFIC GRAVITY	DIN 53508	1.2±0.05	ASTM D297	1.2±0.05
HARDNESS	DIN 53505	60 ± 5 SH A	ASTM D2240	60 ± 5 SH A
TENSILE STRENGTH (MIN)	DIN 53504	853 PSI	ASTM D412	100 KG/CM2
ELONGATION AT BREAK (MIN)	DIN 53504	250%	ASTM D412	250%
COMPRESSION SET (70° C/24 HRS/25% SET) (MAX)	DIN ISO 815-1	40%	ASTM D395 METHOD B	40%
POLYMER CONTENT (%)		100		100
TEAR RESISTANCE (ANGULAR) MIN	DIN 53515	112 LBS/INCH	ASTM D624	20 KG/CM
CHANGE IN PROPERTIES				
HEAT AGEING (72 HRS. AT 100 °C)			ASTM D573	
--- HARDNESS (PTS)		+ 3 (MAX)		+ 3 (MAX)
--- TENSILE STRENGTH (%)		±5		±5
--- ELONGATION AT BREAK (%)		±5		±5
VOLUME SWELL: AT 70° C FOR 72 HRS/IN			ASTM D 471	
IRM OIL NO.1		+ 5%		+ 5%
IRM OIL NO.2		+ 7%		+ 7%
IRM OIL NO.3		+ 25%		+ 25%
CHEMICAL RESISTANCE				
--- OZONE		EXCELLENT	ASTM D 1149	EXCELLENT
--- DILUTE ACIDS AND BASES		EXCELLENT		EXCELLENT
--- CONCENTRATED ACIDS AND BASES		EXCELLENT		EXCELLENT
--- OILS		GOOD		GOOD
--- SOLVENTS		FAIR		FAIR
TEMPERATURE RANGE		-60 ° TO + 225° C		-60 ° TO + 225° C
COLOUR	TRANSLUCENT			

Test No. 1-i) Sensory verification of Odour/Smell

Test Specification(s)/Regulation(s): Regulation (EC) No. 1935/2004 & Council of Europe Resolution ResAP (2004) 5 on silicones to be used for food contact applications.

Test method adopted: DIN 10955:2004.

Simulant(s) used: Distilled Water.

Test Condition(s): 100°C or reflux for 4 hours.

COMPONENT NO.	TEST PARAMETER	RESULT (GRADE)	COMPLIANCE REQUIREMEN T/LIMIT MAX	CONCLUSION (PASS/FAIL)
A	RATING	1	LESS THAN 2.5	PASS
NOTE: (INTERMEDIATE GRADES ARE ALLOWED) 0 = NO PERCEPTIBLE DIFFERENCE IN ODOUR. 1 = JUST PERCEPTIBLE DIFFERENCE IN ODOUR (STILL DIFFICULT TO DEFINE). 2 = SLIGHT DIFFERENCE IN ODOUR. 3 = MARKED DIFFERENCE IN ODOUR. 4 = STRONG DIFFERENCE IN ODOUR.				

(Test No. 1-ii) Sensory verification of Taste

Test specification(s)/Regulation(s): Regulation (EC) No. 1935/2004 & Council of Europe Resolution ResAP (2004) 5 on silicones to be used for food contact applications.

Test method adopted: DIN 10955:2004.

Simulant(s) used: Distilled water

Test condition(s): 100°C or reflux for 4 hours.

COMPONENT NO.	TEST PARAMETER	RESULT (GRADE)	COMPLIANCE REQUIREMEN T/LIMIT MAX	CONCLUSION (PASS/FAIL)
A	RATING	0	LESS THAN 2.5	PASS
Note: (INTERMEDIATE GRADES ARE ALLOWED) 0 = NO PERCEPTIBLE DIFFERENCE IN TASTE. 1 = JUST PERCEPTIBLE DIFFERENCE IN TASTE (STILL DIFFICULT TO DEFINE). 2 = SLIGHT DIFFERENCE IN TASTE. 3= MARKED DIFFERENCE IN TASTE. 4 = STRONG DIFFERENCE IN TASTE. 4 = STRONG DIFFERENCE IN ODOUR.				

Test No. 2) Overall Migration**Test specification(s)/Regulation(s):** Council of Europe Resolution ResAP (2004) 5 on silicones to be used for food contact applications.**Test method(s) adopted:** With reference to EN 1186-3:2002 (for 3% acetic acid) &EN 1186-14:2002 (for 95% ethanol and iso-octane).**Simulant(s) used:** Refer below.**Test Condition(s):** Refer below (Note: Tests conducted under repeat conditions).

S.NO	SIMULANT USED	TEST CONDITION(S)	COMPONENT NO.	RESULT (MG/DM ²)	COMPLIANCE REQUIREMENT/ LIMIT MAX. (MG/DM ²)	CONCLUSION (PASS/FAIL)
1.	3% ACETIC ACID	10°C OR REFLUX FOR 4 HOURS	A	ND	10	PASS
2.	95% ETHANOL	60°C FOR 6 HOURS	A	ND	10	PASS
3.	ISO-OCTANE	60°C FOR 4 HOURS	A	ND	10	PASS
OVERALL CONCLUSION (PASS/FAIL)						PASS
LIMITED OF QUANTIFICATION: 2.0 MG/DM ²						
NOTE: (1) "MG/DM ² " DENOTES MILLIGRAM PER SQUARE DECIMETRE; (2) "°C" DENOTES DEGREE CELSIUS; (3) "%" DENOTES PERCENT; (4) "ND" DENOTES NOT DETECTED.						

(Test No. 3) Specific migration of formaldehyde (CAS No. 50-00-0)**Test specification(s)/Regulation(s):** Council of Europe Resolution ResAP (2004) 5 on silicones to be used for food contact applications.**Test method(s) adopted:** With reference to EN 13130-1:2004 followed by analysis as per DD CEN/TS 13130-23:2005.**Simulant(s) used:** Refer below.**Test condition(s):** Refer below (Note: Tests conducted under repeat use conditions).

S.NO	SIMULANT USED	TEST CONDITION(S)	COMPONENT NO.	RESULT (MG/DM ²)	COMPLIANCE REQUIREMENT/ LIMIT MAX	CONCLUSION (PASS/FAIL)
1.	3% ACETIC ACID	10°C OR REFLUX FOR 4 HOURS	A	ND	15 MG/KG	PASS
2.	95% ETHANOL	60°C FOR 6 HOURS	A	ND	15 MG/KG	PASS
3.	ISO-OCTANE	60°C FOR 4 HOURS	A	ND	15 MG/KG	PASS
OVERALL CONCLUSION (PASS/FAIL)						PASS
LIMITED OF QUANTIFICATION: 10 MG/DM						
NOTE: (1) "MG/DM ² " DENOTES MILLIGRAM PER SQUARE DECIMETRE; (2) "°C" DENOTES DEGREE CELSIUS; (3) "%" DENOTES PERCENT; (4) "ND" DENOTES NOT DETECTED.						

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