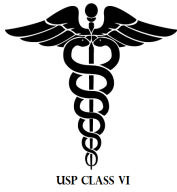




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White Food Quality NR / SBR 60° shore WJ136

Approved to: US FDA21 CFR177,2600 & EU1935/2004 and USP Class 1 V1 Compliant

PROPERTIES	TEST METHOD	VALUES		
		FPS UNITS	METRIC UNITS	
SPECIFIC GRAVITY	DIN 53508	1.5 ± 0.05	ASTM D297	1.5 ± 0.05
HARDNESS	DIN 53505	60 ± 5 SH A	ASTM D2240	60 ± 5 SH A
TENSILE STRENGTH (MIN)	DIN 53504	1140 PSI	ASTM D412	60 KG/CM2
ELONGATION AT BREAK (MIN)	DIN 53504	200%	ASTM D412	200%
COMPRESSION SET (70°C/24 HRS/25% COMPRESSION) (MAX)	DIN ISO 815-1	40%	ASTM D395 METHOD B	40%
POLYMER CONTENT		NA		NA
TEAR RESISTANCE (ANGULAR) MIN	DIN 53515	112 LBS/INCH	ASTM D624	20 KG/CM
CHANGE IN PROPERTIES AFTER HEAT AGEING FOR (72 HRS. AT 70 °C)			ASTM D573	
--- HARDNESS (PTS)		+ 5 (MAX)		+ 5 (MAX)
--- TENSILE STRENGTH (%)		+ 10 / 15		+ 10 / 15
--- ELONGATION AT BREAK (%)		+ 10 / 15		+ 10 / 15
VOLUME SWELL: AT 70°C FOR 72 HRS			ASTM D 471	
IN IRMOIL NO.1		NOT RECOMMENDED		NOT RECOMMENDED
IN IRMOIL NO.2		NOT RECOMMENDED		NOT RECOMMENDED
IN IRMOIL NO.3		NOT RECOMMENDED		NOT RECOMMENDED
CHEMICAL RESISTANCE				
--- OZONE		NOT RECOMMENDED	ASTM D 1149	NOT RECOMMENDED
--- DILUTE ACIDS AND BASES		NOT RECOMMENDED		NOT RECOMMENDED
--- CONCENTRATED ACIDS AND BASES		NOT RECOMMENDED		NOT RECOMMENDED
--- OILS		NOT RECOMMENDED		NOT RECOMMENDED
--- SOLVENTS		NOT RECOMMENDED		NOT RECOMMENDED
TEMPERATURE RANGE		-30 ° TO + 70°C		-30 ° TO + 70°C
COLOUR		OFF-WHITE		OFF-WHITE

TEST RESULTS: MIGRATION DATA

(TEST NO. 1-I) SENSORY VERIFICATION OF ODOUR/SMELL

(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) 4 ON RUBBER PRODUCTS INTENDED TO COME INTO CONTACT WITH FOODSTUFFS.

TEST METHOD ADOPTED: DIN 10955:2004.

SIMULANT(S) USED: DISTILLED WATER.

TEST CONDITION(S): 100 0C OR REFLUX FOR 4 HOURS.

COMPONENT NO.	TEST PARAMETER	RESULT (GRADE)	COMPLIANCE REQUIREMENT/LIMIT MAX.	CONCLUSION (PASS/FAIL) REFER REMARK 3 ON PAGE NO.2)
A	RATING	0	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) 4 ON RUBBER PRODUCTS INTENDED TO COME INTO CONTACT WITH FOODSTUFFS.

TEST METHOD ADOPTED: DIN 10955:2004.

SIMULANT(S) USED: DISTILLED WATER.

TEST CONDITION(S): 100°C OR REFLUX FOR 4 HOURS.

COMPONENT NO.	TEST PARAMETERS	RESULT (GRADE)	COMPLIANCE REQUIREMENT/LIMIT MAX.	CONCLUSION (PASS/FAIL) (REFER REMARK 3 ON PAGE NO.2)
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.

(TEST NO. 2) OVERALL MIGRATION

TEST SPECIFICATION(S)/REGULATION(S): COUNCIL OF EUROPE RESOLUTION RESAP (2004) 4 ON RUBBER PRODUCTS INTENDED TO COME INTO CONTACT WITH FOODSTUFFS.
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); SIMULANTS 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/KG)
1	3 % ACETIC ACID	100 °C OR REFLUX FOR 4 HOURS	A	ND
2	95 % ETHANOL	60 °C FOR 6 HOURS	A	ND
3	ISO- OCTANE	60 °C FOR 4 HOURS	A	ND
OVERALL CONCLUSION (PASS/FAIL)				Pass
LIMIT OF QUANTIFICATION: 12.0 MG/KG				

Note

- (1) "MG/KG" DENOTES MILLIGRAM PER KILOGRAM;
- (2) °C DENOTES DEGREES CELCIUS.
- (3) "%" DENOTES PER CENT.
- (4) "ND" DENOTES NOT DETECTED

(TEST NO. 3) Specific migration of primary aromatic amines

TEST SPECIFICATION(S)/REGULATION(S): COUNCIL OF EUROPE RESOLUTION RESAP (2004) 4 ON RUBBER PRODUCTS INTENDED TO COME INTO CONTACT WITH FOODSTUFFS.
TEST METHOD(S) ADOPTED: WITH REFERENCE TO EN 13130-1:2004 FOLLOWED BY ANALYSIS USING UV VISIBLE SPECTROPHOTOMETER.
SIMULANT(S) USED: 3 % ACETIC ACID.
TEST CONDITION(S): 100 °C OR REFLUX FOR 4 HOURS (UNDER REPEAT-USE CONDITIONS); EQUIPMENT(S) USED: UV VISIBLE SPECTROPHOTOMETER.

COMPONENT NO.	RESULT (MG/KG)	LIMIT OF QUANTIFICATION (MG/KG)	COMPLIANCE REQUIREMENT/LIMIT MAX.	CONCLUSION (PASS/FAIL)
A	ND	0.01	SUM OF PRIMARY AROMATIC AMINES SHALL BE LESS THAN 0.01 MG/KG	PASS

Note:

- (1) "MG/KG" DENOTES MILLIGRAM PER KILOGRAM;
- (2) °C DENOTES DEGREES CELCIUS.
- (3) "%" DENOTES PER CENT.
- (4) "ND" DENOTES NOT DETECTED.
- (5) "UV" DENOTES ULTRA-VIOLET

(TEST NO. 4-I) SPECIFIC MIGRATION OF PHTHALATES

TEST SPECIFICATION(S)/REGULATION(S): COUNCIL OF EUROPE RESOLUTION RESAP (2004) 4 ON RUBBER PRODUCTS INTENDED TO COME INTO CONTACT WITH FOODSTUFF.

TEST METHOD(S) ADOPTED: WITH REFERENCE TO EN 13130-1:2004 FOLLOWED BY ANALYSIS USING GC MS;
SIMULANT(S) USED: 95 % ETHANOL.

TEST CONDITION(S): 60 °C FOR 6 HOURS (UNDER REPEAT-USE CONDITIONS).
EQUIPMENT(S) USED: GC MS (GAS CHROMATOGRAPHY MASS SPECTROMETER).

S.NO	PARAMETER	CAS NO.	RESULT (MG/KG) – COMPONENT NO. A	LIMIT OF QUANTIFICATION (MG/KG)	COMPLIANCE REQUIREMENT/LIMIT MAX.	CONCLUSION (PASS/FAIL) (REFER REMARK 3 ON PAGE NO.2)
1	BENZYL BUTYL PHTHALATE (BBP)	85- 68-7	ND	0.3	NOT TO EXCEED 6 MG/KG	PASS
2	DIETHYLHEXYL PHTHALATE (DEHP)	117- 81-7	ND	0.3	NOT TO EXCEED 3 MG/KG	PASS
3	DIBUTYL PHTHALATE (DBP)	84- 74-2	ND	0.3	NOT TO EXCEED 3 MG/KG	PASS
4	DICYCLOHEXYL PHTHALATE (DCHP)	84- 61-7	ND	0.3	NOT TO EXCEED 6 MG/KG	PASS
5	DIETHYL PHTHALATE (DEP)	84- 66-2	ND	0.3	NOT TO EXCEED 12 MG/KG	PASS
OVERALL CONCLUSION (PASS/FAIL)						PASS

Note

(1) "MG/KG" DENOTES MILLIGRAM PER KILOGRAM:

(2) "ND" DENOTES NOT DETECTED.

(3) °C DENOTES DEGREES CELCIUS.

(4) "%" DENOTES PERCENTAGE.

(Test No. 4-ii) Specific migration of phthalates

Test Specification(s)/Regulation(s): Council of Europe Resolution ResAP (2004) 4 on rubber products intended to come into contact with foodstuff.

Test method(s) adopted: With reference to EN 13130-1:2004 followed by analysis using GC MS; Simulant(s) used: Iso-octane.

Test Condition(s): 60°C for 4 hours (under repeat-use conditions).

Equipment(s) used: GC MS (Gas Chromatography Mass Spectrometer).

S. No.	Parameter	CAS No.	Result (mg/kg) - Component No. A	Limit of Quantification (mg/kg)	Compliance Requirement / Limit Max.	Conclusion (Pass/Fail)
1	Benzylbutyl phthalate (BBP)	85-68-7	ND	0.3	Not to exceed 6 mg/kg	Pass
2	Diethylhexyl phthalate (DEHP)	117-81-7	ND	0.3	Not to exceed 3 mg/kg	Pass
3	Dibutyl phthalate (DBP)	84-74-2	ND	0.3	Not to exceed 3 mg/kg	Pass
4	Dicyclohexyl phthalate (DCHP)	84-61-7	ND	0.3	Not to exceed 6 mg/kg	Pass
5	Diethyl phthalate (DEP)	84-66-2	ND	0.3	Not to exceed 12 mg/kg	Pass
Overall Conclusion (Pass/Fail)						Pass

Note: "mg/kg" denotes milligram per kilogram; (2) "ND" denotes Not Detected; (3) °C denotes degrees Celsius; (4) "%" denotes percentage.

(TEST NO. 5) Migration of N-Nitrosamines & N-Nitrosatable substances

TEST SPECIFICATION(S)/REGULATION(S): COUNCIL OF EUROPE RESOLUTION RESAP (2004) 4 ON RUBBER PRODUCTS INTENDED TO COME INTO CONTACT WITH FOODSTUFF.
TEST METHOD ADOPTED: BASED ON BS EN 12868:1999.
EQUIPMENT(S) USED: GAS CHROMATOGRAPHY MASS SPECTROMETER (GC MS).

TEST PARAMETER	COMPONENT NO.	TEST RESULT (MG/KG)	LIMIT OF QUANTIFICATION (MG/KG)	COMPLIANCE REQUIREMENT/LIMIT MAX.	CONCLUSION (PASS/FAIL)
MIGRATION OF N-NITROSAMINE S	A	ND	0.01	SHALL BE LESS THAN 0.01 MG/KG	PASS
MIGRATION OF N-NITROSATABLE SUBSTANCES	A	ND	0.1	SHALL BE LESS THAN 0.1 MG/KG	PASS

Note:

(1) "ND" denotes NOT Detected.

(2) mg/kg denotes Milligram per Kilogram

(TEST NO. 6) SPECIFIC MIGRATION OF BUTADIENE (1,3-BUTADIENE) (CAS NO. 106-99-0)

TEST SPECIFICATION(S)/REGULATION(S): COUNCIL OF EUROPE RESOLUTION RESAP (2004) 4 ON RUBBER PRODUCTS INTENDED TO COME INTO CONTACT WITH FOODSTUFF;

TEST METHOD(S) ADOPTED: WITH REFERENCE TO EN 13130-1:2004 FOLLOWED BY ANALYSIS AS PER DD CEN/TS 13130- 15:2005; SIMULANTS USED: 3 % ACETIC ACID; TEST CONDITION(S): 100 °C OR REFLUX FOR 4 HOURS (UNDER REPEAT-USE CONDITIONS); EQUIPMENT(S) USED: GAS CHROMATOGRAPHY MASS SPECTROMETER (GC MS);

COMPONENT NO.	RESULT (MG/KG)	METHOD DETECTION LIMIT	COMPLIANCE REQUIREMENT/LIMIT MAX.	CONCLUSION (PASS/FAIL)
A	ND	0.2 MG/KG	SHALL BE LESS THAN 0.02MG/KG	PASS

Note:

(1) "MG/KG" DENOTES MILLIGRAM PER KILOGRAM:

(2) °C DENOTES DEGRESS CELCIUS.

(3) "%" DENOTES PERCENTAGE

(4) DENOTES NOT DETECTED

END OF TEST REPORT

Disclaimer

Please note, failure to select the correct materials or products we supply ("the Products") may result in damage to plant, equipment or property. In some instances, it may cause death or personal injury. We are not designers and do not give advice about design related matters concerning the Products. We can help and assist with the technical specifications for the Products. In specific applications, particularly where critical conditions exist, we will try to assist you within the limitations of the services that we offer. All information supplied by us is intended as technical co-operation outlining the specifications of the different Products which we supply. To the extent permitted in law, no warranty is given in respect of any information supplied by us. The customer must satisfy themselves as to the suitability of the Products for their intended application and use. The correct fitting of Products is the responsibility of the customer. Your statutory rights remain unaffected. Save in respect of death, personal injury or fraud, our entire liability to you, however arising from the supply of Products shall be limited to the £10M indemnity amount provided by our insurers.