

Katon[®]



**KATON[®] FKM/SILICONE
Encapsulated O-ring**

KATON[®] Encapsulated O-ring FKM/Silicone

KATON[®] Encapsulated O-ring :

The outer part is FEP or PFA special high temperature resistant fluorine plastic. And the inner is coated with elastic rubber (fluorine rubber /silicone, etc.), solid or hollow core. O rings are compounded by a special technique.



Features:

- Excellent character of corrosion resistance and can be applied to almost all chemical media.
- Compliance with environmental hygiene requirements.
- Low coefficient of friction and abrasion resistance.
- The characteristics of encapsulated products.
- Excellent sealing ability and has a long life.
- Good resistance to compression.



Outer material : FEP or PFA tubes

Outer Layer Material	Index of FEP	Index of PFA
Density	2.14 ~ 2.17	2.12 ~ 2.17
Tensile strength (longitudinal) Mpa	≥250	≥18.0
Fracture tensile strain (longitudinal)	≥20%	≥20%
Temperature in use	-60°C ~ +210°C	-60°C ~ +260°C

Feature	Encapsulated silicone	Encapsulated fluoroelastomer
Color	Red	Black
Static Seal	Y	Y
Pressure limit	1500psi	1500psi
Working Temperature	-20°C ~ +220°C	-5°C ~ +220°C
Dynamic Seal	N/A	N/A
Inner core	Possesses lower Shore hardness and greater elasticity.	Higher chemical resistance and resistance to permanent compression deformation.

*Typical properties these are not to be construed as specifications.

Absorption test, 168 hours.

	Test Temp.	Expansion rate. FEP	Expansion rate. PFA
Aniline	185°C	0.3%~0.4%	0.3%~0.4%
Phenylacetaldehyde	201°C	0.6%~0.8%	0.6%~0.8%
Benzaldehyde	179°C	0.5%~0.6%	0.5%~0.6%
Bromine	22°C	N.D	0.50%
Chlorine	120°C	0.5%~0.6%	0.5%~0.6%
Chlorosulfuric acid	150°C	0.7%~0.8%	0.7%~0.8%
Chromic acid 50%	120°C	N.D	N.D
Dimethyl sulfoxide	190°C	0.1%~0.2%	0.1%~0.2%
Ferric Chloride 25%	100°C	N.D	N.D
Freon 113	47°C	N.D	1.20%
Hydrochloric acid 37%	120°C	N.D	N.D
ISO-Octane	99°C	0.7%~0.8%	0.7%~0.8%
Nitrobenzene	210°C	0.7%~0.9%	0.7%~0.8%
Tetrachloroethylene	121°C	2~2.2%	2~2.2%
Orthophosphoric acid	100°C	N.D	N.D
Toluene	110°C	0.7%~0.9%	0.7%~0.8%
Tributyl Phosphate	200°C	1.8%~2%	1.8%~2%
Zinc chloride	100°C	N.D	N.D

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測試報告 Test Report

報告編號(No.): HTF23300623

報告日期(DATE): 2023/03/23

頁數(PAGE): 1 of 3

科頓聚合物股份有限公司 (MAXMOLD POLYMER CO., LTD.)

新竹市香山區中華路四段434巷18號 (NO.18, LN.434, SEC.4, ZHONGHUA RD., XIANGSHAN DIST., HSINCHU 30094, TAIWAN)

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as) :

送樣廠商(Sample Submitted By) : 科頓聚合物股份有限公司 (MAXMOLD POLYMER CO., LTD.)
 樣品名稱(Sample Description) : KATON ENCAPSULED O-RING (科頓 包覆式密封圈)
 樣品型號(Style/Item No.) : KATON ENCAPSULED O-RING
 樣品材質(Sample Material) : PFA 包覆式 (PFA ENCAPSULED)
 生產或供應廠商(Manufacturer/Vendor) : 科頓聚合物股份有限公司 (MAXMOLD POLYMER CO., LTD.)
 原產國(Country Of Origin) : 台灣 (TAIWAN)

收件日(Sample Receiving Date) : 2023/03/14
 測試期間(Testing Period) : 2023/03/14 to 2023/03/23

測試需求 (Test Requested) :

- (1) 客戶指定依據美國聯邦法規之藥物暨食品管理 (FDA) 21 CFR 177.1210 (使用條件A) 進行測試。測試項目請參閱測試結果表格。(As specified by client, the sample(s) was/were tested according to U.S. Food and Drug Administration (FDA) 21 CFR 177.1210 (Condition of use A). Please refer to the result table(s) for the testing item(s).)
- (2) 客戶指定依據美國聯邦法規之藥物暨食品管理 (FDA) 21 CFR 177.1210 (使用條件D) 進行測試。測試項目請參閱測試結果表格。(As specified by client, the sample(s) was/were tested according to U.S. Food and Drug Administration (FDA) 21 CFR 177.1210 (Condition of use D). Please refer to the result table(s) for the testing item(s).)

測試結果 (Test Results) : 請見下一頁。(Please refer to next page(s).)

Singh Hsiao
 Singh Hsiao / Asst. Manager
 Signed for and on behalf of
 SGS TAIWAN LTD.
 Chemical Laboratory - Taipei



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測試部位敘述(Test Part Description)

No.1 : 密封圈 (O-RING)

測試結果(Test Results)

(1)

通過(PASS)

測試項目 (Test Item(s))	測試方法 (Method)	單位 (Unit)	RL	結果 (Result)	限值 (Limit)
				No.1	
氯仿可萃取物 (水, 250°F, 2小時) / Net chloroform-soluble extractives (D.I. Water, 250°F, 2 h)	參考美國FDA 21 CFR 177.1210. / With reference to US FDA 21 CFR 177.1210.	ppm	5	n.d.	50
氯仿可萃取物 (正庚烷, 150°F, 2小時) / Net chloroform-soluble extractives (n-Heptane, 150°F, 2 h)	參考美國FDA 21 CFR 177.1210. / With reference to US FDA 21 CFR 177.1210.	ppm	5	n.d.	50

(2)

通過(PASS)

測試項目 (Test Item(s))	測試方法 (Method)	單位 (Unit)	RL	結果 (Result)	限值 (Limit)
				No.1	
氯仿可萃取物 (8% 乙醇, 150°F, 2小時) / Net chloroform-soluble extractives (8% Alcohol, 150°F, 2 h)	參考美國FDA 21 CFR 177.1210. / With reference to US FDA 21 CFR 177.1210.	ppm	5	n.d.	50

備註(Note) :

1. mg/kg = ppm ; 0.1% = 1000 ppm
2. RL = Reporting Limit (報告極限值)
3. n.d. = Not Detected (未檢出) = Less than (小於) RL
4. 本報告不得分離或擷錄使用。(The report is invalid if it is partly reproduced or used.)
5. 本實驗室之報告符合性聲明依ILAC-G8:09/2019簡單允收之二分法判定規則(w=0, AL=TL)做為測試結果符合性聲明判定之判定依據。(The decision rule of the statements of conformity is following the ILAC G8:09/2019 by using the simple acceptance decision rule.)

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* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。*

(The tested sample / part is marked by an arrow if it's shown on the photo.)

HTF23300623



** 報告結尾 (End of Report) **

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