



GREFLINE®

特种氟材料



请仔细阅读 有限保证资料 202503版

本手册所含内容皆为我们认为可靠的信息,由于产品的使用条件和使用方法无法控制,所以我们不能保证产品在某些用法与用途上的正确性和适用性。用户在使用产品之前应详细了解产品后再决定最佳的使用方法。本手册涉及的使用建议不构成产品在某些特殊用途上的适用性的保证、表达或暗示。

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中蓝晨光®
CHENGRAND

CATALOGUE

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关于我们

——中蓝晨光院

ABOUT US CHENGRAND

人力资源

我院拥有各专业配套的学术技术带头人和专业的骨干队伍，并建有国家级博士后工作站。

业务模式

中蓝晨光致力于为客户提供高性能新材料多元化解决方案，聚焦有机硅材料、特种有机纤维、塑料合金及助剂、特种环氧材料和有机氟材料科研生产，配套工程设计、产品测试及期刊信息等专业技术服务。

业内领先

我院在有机硅、工程塑料、特种纤维及特种氟材料等领域始终处于国内领先地位，且在国际上有较高的知名度。

科技创新

我院主要从事高新材料的研究和生产，先后承担各类国家重点研究项目，取得的各类科研成果多次获奖，许多关键技术或产品都是由我院首先开发并辐射至全国。

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02 氟橡胶密封制品



PERFLUOROMETHYL VINYL ETHER

全氟甲基乙烯基醚

产品概述与特点

PRODUCT OVERVIEW AND FEATURES

• 全氟甲基乙烯基醚(CAS号: 1187-93-5)是一种高性能含氟有机化合物,化学式为 $CF_3OCF=CF_2$,作为重要的含氟单体,其独特的全氟结构赋予聚合物优异的耐高温、耐腐蚀及化学稳定性,广泛应用于特种氟橡胶、氟塑料及高端密封材料的合成。

PERFLUOROMETHYL VINYL ETHER (CAS NUMBER: 1187-93-5) IS A HIGH-PERFORMANCE FLUORINATED ORGANIC COMPOUND WITH THE CHEMICAL FORMULA $CF_3OCF=CF_2$, AS AN IMPORTANT FLUORINATED MONOMER, ITS UNIQUE PERFLUORINATED STRUCTURE ENDOWS THE POLYMER WITH EXCELLENT HIGH TEMPERATURE RESISTANCE, CORROSION RESISTANCE, AND CHEMICAL STABILITY. IT IS WIDELY USED IN THE SYNTHESIS OF SPECIAL FLUORORUBBER, FLUOROPLASTICS, AND HIGH-END SEALING MATERIALS.

• 出色的聚合活性

作为含氟乙烯基醚单体,可与四氟乙烯(TFE)、六氟丙烯(HFP)等共聚,显著改善聚合物的柔韧性、耐低温性及加工性能。

AS A FLUORINATED VINYL ETHER MONOMER, IT CAN BE COPOLYMERIZED WITH TETRAFLUOROETHYLENE (TFE), HEXAFLUOROPROPYLENE (HFP), ETC., SIGNIFICANTLY IMPROVING THE FLEXIBILITY, LOW TEMPERATURE RESISTANCE, AND PROCESSABILITY OF THE POLYMER.

• 低表面能与疏水性

赋予终端材料抗污、防粘、防水等特性,适用于表面涂层及密封材料。

ENDOW TERMINAL MATERIALS WITH ANTI FOULING, ANTI STICKING, WATERPROOF AND OTHER CHARACTERISTICS, SUITABLE FOR SURFACE COATINGS AND SEALING MATERIALS.

• 高纯度与安全性

杂质含量极低,满足电子级材料要求。保质期长,安全性与稳定性好。

THE IMPURITY CONTENT IS EXTREMELY LOW, MEETING THE REQUIREMENTS OF ELECTRONIC GRADE MATERIALS. LONG SHELF LIFE, GOOD SAFETY AND STABILITY.



主要成分和理化特性

MAIN COMPOSITIONS AND PHYSICOCHEMICAL PROPERTIES



结构式: $CF_3-O-CF=CF_2$
Structure formula: $CF_3-O-CF=CF_2$



CAS号: 1187-93-5
CAS number: 1187-93-5



分子量: 166.02
Molecular weight (MW): 166.02



常压沸点: $-25^{\circ}C$
Normal boiling point: $-25^{\circ}C$



蒸汽压 ($20^{\circ}C$): 503 kPa
Vapor pressure ($20^{\circ}C$): 503 kPa



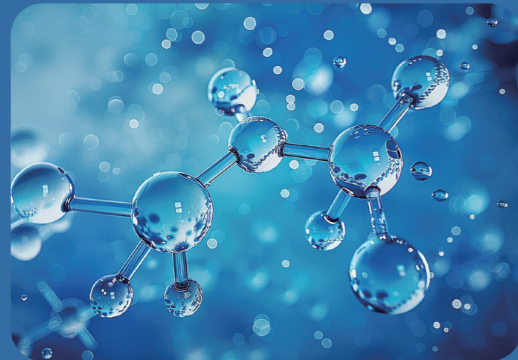
液体密度 ($20^{\circ}C$): 1410 kg/m^3
Liquid Density ($20^{\circ}C$): 1410 kg/m^3

主要型号分类

MAIN TYPE
CLASSIFICATION

主要用途

MAIN APPLICATION



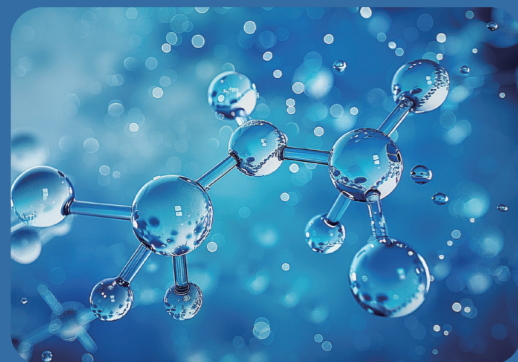
型号：优等型

T Y P E : PREMIUM TYPE

全氟甲基乙烯基醚含量

PMVE CONTENT

≥99.99%



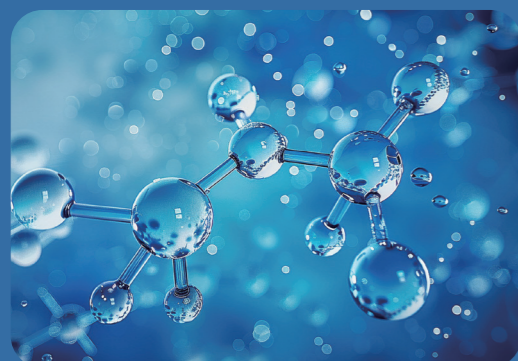
型号：I型

T Y P E : TYPE I

全氟甲基乙烯基醚含量

PMVE CONTENT

≥99.5%



型号：II型

T Y P E : TYPE II

全氟甲基乙烯基醚含量

PMVE CONTENT

≥98.5%

• 全氟甲基乙烯基醚作为特种含氟单体在开发新型综合性能优异的氟塑料和氟橡胶中有着广泛的用途。

PERFLUOROMETHYL VINYL ETHER (PMVE) AS THE SPECIAL FLUORIC MONOMER HAS WIDE APPLICATIONS IN THE DEVELOPMENT OF NEW-STYLE FLUOROPLASTICS AND FLUOROELASTOMERS (FKM) WITH EXCELLENT INTEGRATIVE PROPERTIES.

• 与四氟乙烯共聚成耐高温、耐强化学腐蚀的全氟醚弹性体。

COPOLYMERIZED WITH TETRAFLUOROETHYLENE (TFE) TO PRODUCE THERMAL AND CHEMICAL CORROSION RESISTANT PERFLUORO-ELASTOMER (FFKM).

• 与四氟乙烯和偏氟乙烯共聚，合成低温性能优良、可用过氧化物交联的偏氟醚橡胶。

COPOLYMERIZED WITH TFE AND VINYL DENE FLUORIDE (VDF) TO PRODUCE FKM CROSSLINKED WITH PEROXIDE.

• 将少量全氟甲基乙烯基醚与四氟乙烯共聚，制备可熔融加工的氟树脂。

SMALL AMOUNT OF PMVE COPOLYMERIZE WITH TFE TO PRODUCE MELTABLE POLYTETRAFLUOROETHYLENE (MFA).

• 全氟甲基乙烯基醚还是合成新型农药双苯氟脌的重要原料。

PMVE ALSO IS THE IMPORTANT MATERIAL OF NEW INSECTICIDE NOVALURON.

使用方法及注意事项

APPLICATION INSTRUCTION AND NOTICE

- 本品常压下为无色气体，以气液两相混合装在钢瓶内。
- 使用时，应使用专门的金属管和接头引入聚合釜或设备中，在开启钢瓶阀之前，应对连接管路进行打压试漏、抽排置换。
- 本产品对人眼睛、呼吸系统和皮肤有刺激性，使用时应避免人体接触。如眼睛接触，应用大量的干净水冲洗；如吸入后感觉不舒服，应及时就医。

BECAUSE OF THE LOW BOILING POINT, PMVE IS IN GAS FORM UNDER NORMAL TEMPERATURES AND STORED IN STEEL CYLINDER IN GAS-LIQUID PHASES.

THEREFORE, SPECIFIC METAL TUBE AND JOINT SHOULD BE CONNECTED ONTO POLYMERIZATION REACTOR AND OTHER EQUIPMENTS WHEN USED. LEAKAGE TEST WITH PRESSURE, EXTRACTION AND AIR REPLACEMENT ARE REQUIRED FOR CONNECTING PIPE BEFORE THE STEEL CYLINDER VALVE OPENED.

THIS PRODUCT IS IRRITANT TO HUMAN EYES, RESPIRATORY SYSTEM AND SKIN, SO IT IS SUGGESTED TO AVOID A DIRECT CONTACT AT MOST EXTENT. IN CASE OF CONTACT WITH EYES, GENTLY FLUSH WITH PLENTY OF WATER. IF FEEL UNCOMFORTABLE WITH SMELL, PLEASE GO FOR HOSPITAL IN TIME.

包装及贮运

PACKAGING STORAGE AND TRANSPORTATION

本产品以气液两相混合装在钢瓶内，钢瓶规格一般为47L、400L、800L。

THIS PRODUCT IS PACKAGED WITH STEEL CYLINDER IN GAS-LIQUID PHASES, THE STEEL CYLINDER SIZE IS 47L,400L,800L.



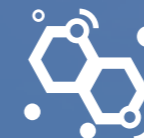
应贮存在阴凉干燥，通风良好的库房，严禁暴晒或靠近易燃地点。

STORED IN SHADE AND DRY ENVIRONMENT AND WELL-VENTILATED INDOOR WAREHOUSE. PROHIBITED TO BE EXPOSED TO THE SUN OR CLOSE TO FLAMMABLE PLACES.



不与助燃气体同库储存，本产品按一般危险品运输。

IT SHOULD NOT BE STORED IN THE SAME WAREHOUSE WITH OXIDIZING GASES. TRANSPORTED AS ORDINARY HAZARDOUS MATERIAL.



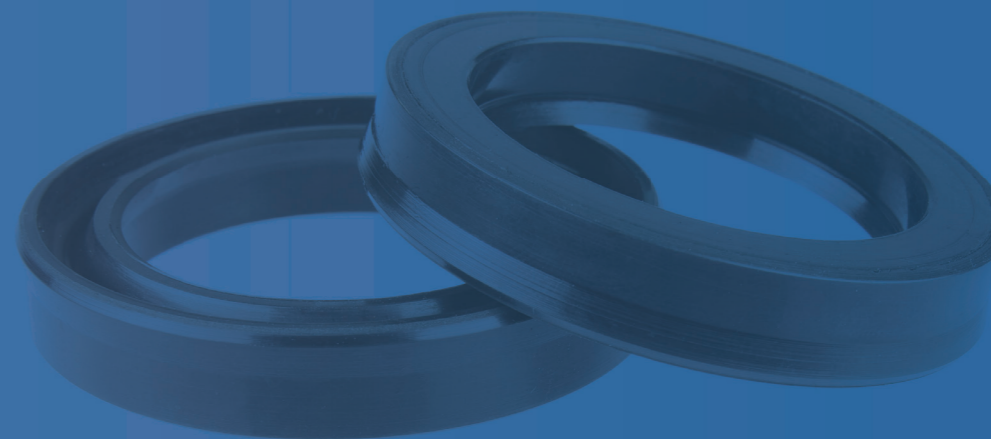
贮存期2年，超过贮存期应按照标准测试性能，合格后使用。

ONCE EXCEEDING THE STORAGE PERIOD (2 YEARS), PERFORMANCE SHALL BE TESTED UPON THE STANDARD AND CYLINDERS CAN ONLY BE USED AFTER QUALIFICATION.



FLUOROELASTOMER SEALING PRODUCT

氟橡胶密封制品



性能和用途

PERFORMANCE AND APPLICATION AND TRANSPORTATION

- 本品具有突出的耐化学介质腐蚀性能，极低的晶圆粘附性能，电绝缘性能优异，可用于多种苛刻条件下的可靠密封，适配半导体湿法工艺设备。本品所有原材料均为国产，可根据用户需要订制开发各种规格尺寸的制品。

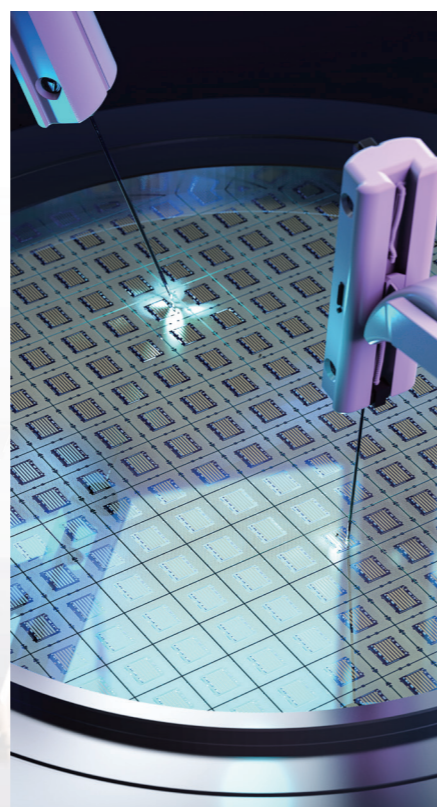
THIS PRODUCT HAS OUTSTANDING RESISTANCE TO CHEMICAL MEDIUM CORROSION, EXTREMELY LOW WAFER ADHESION, AND EXCELLENT ELECTRICAL INSULATION PROPERTIES. IT CAN BE USED FOR RELIABLE SEALING UNDER VARIOUS HARSH CONDITIONS AND IS SUITABLE FOR SEMICONDUCTOR WET PROCESS EQUIPMENT. ALL RAW MATERIALS OF THIS PRODUCT ARE DOMESTICALLY SOURCED, AND WE CAN CUSTOMIZE AND DEVELOP PRODUCTS OF VARIOUS SPECIFICATIONS AND SIZES ACCORDING TO CUSTOMER'S REQUIREMENT.

外观和尺寸

APPEARANCE AND DIMENSIONS

- 白色或黑色至灰黑色橡胶材质密封圈，工作面光洁度高，装配面为磨砂表面。本品尺寸精度高，关键尺寸满足 $\pm 0.03\text{mm}$ 公差要求。

THE SEALING RING IS MADE OF WHITE OR BLACK TO GRAYISH-BLACK RUBBER MATERIAL, WITH A HIGHLY SMOOTH WORKING SURFACE AND A FROSTED ASSEMBLY SURFACE. THIS PRODUCT BOASTS HIGH DIMENSIONAL ACCURACY, WITH KEY DIMENSIONS MEETING THE TOLERANCE REQUIREMENT OF $\pm 0.03\text{MM}$.



储存

STORAGE

- 本产品应贮存在阴凉干燥室内，储存期 10 年。

THIS PRODUCT SHOULD BE STORED IN A COOL AND DRY INDOOR ENVIRONMENT, WITH A STORAGE PERIOD OF 10 YEARS.

主要型号分类

MAIN GRADES

型号
GRADE

外观颜色
APPEARANCE

材质
MATERIAL

FER Lip Seal B75

黑色至灰黑色
Black to grayish-black

国产 FER
Domestic FER

FER Lip Seal W75

白色或浅白色
White or light white

国产 FER
Domestic FER

PFER Lip Seal B75

黑色至灰黑色
Black to grayish black

国产 PFER
Domestic PFER

PFER Lip Seal W75

白色或浅白色
White or light white

国产 PFER
Domestic PFER

