



INDUSTRY
工业应用



SPECIAL QUALITIES ARE
OUR STANDARD

坚守优质标准，造就非凡品质

OUR COMPANY

BENEFITS IN ALL SHAPES AND SIZES

我们的公司

致力为各行各业提供优质热塑性弹性体 (TPE) 产品

Thermoplastic Elastomers (TPEs) are the materials used to make progress. Compounds from KRAIBURG TPE will open up all sorts of new opportunities in product development and processing making production efficient for you as well.

The solutions provided by KRAIBURG TPE will enable you to meet the highest requirements. Our company not only offers high-quality specially custom-engineered products, but also provides a unique level of comprehensive customer service.

The company's motto, "CUSTOM-ENGINEERED TPE AND MORE", is meant to be taken literally. Our goal is to identify the challenges you face with you and support you at all times anywhere in the world.

热塑性弹性体 (TPE) 是实现产品改进的重要材料。凯柏胶宝® 的化合物将为产品开发 and 加工开辟出全新的可能，让您的生产效率更加出色。

凯柏胶宝® 的TPE解决方案将竭力满足您的全部要求。我们公司不仅提供高品质的特殊定制产品，还用心提供全面而独家的客户服务。

公司一言一行，都在贯行“不只是定制 TPE”的座右铭。我们的目标是：与您携手，明确当前挑战，在世界各地随时随地为您提供支持。



Regional Headquarters
区域总部

Buford (GA) **USA**
布福德(乔治亚州)/美国

Headquarters
总部

Waldkraiburg **GERMANY**
瓦尔德克赖堡/德国

Regional Headquarters
区域总部

Kuala Lumpur **MALAYSIA**
吉隆坡/马来西亚



THE MARKET

GETTING TO GRIPS WITH EVERYTHING

市场

完美掌控

Thermoplastic Elastomers (TPEs) are playing an increasingly important role in industrial applications. They improve the functionality of products and give them an appealing appearance. TPEs also provide optimal touch qualities making specific designs possible and increasing the value of the products.

KRAIBURG TPE has developed compounds specifically tailored to industrial applications that are as multifaceted as the industry itself. This is highlighted in diverse segments such as the electronics, building and sanitary sectors.

When functional integration and design require compounds that are optimum for multi-component parts, you can be confident that KRAIBURG TPE materials will be the perfect choice for your product. In addition, our specially developed TPEs are fully compliant with flame retardation and drinking water regulations.

With a low density of up to 0.7 g/cm^3 , our Lightweight TPE ensures weight-reduced components and end products in various market segments.

热塑性弹性体 (TPE) 在工业应用中发挥着越来越重要的作用。它不仅可以改善产品功能，赋予其充满吸引力的外观，还能优化触感，满足各种创新设计的材料需求，从而极大地提高产品的价值。

凯柏胶宝® 为各种工业应用量身开发了各式各样的化合物，我们的产品尤其被广泛应用于电子、建筑和卫生行业等多个不同领域。

在当今工业领域，许多功能整合和设计都要求化合物能应用于多组分包胶部件，因此凯柏胶宝® 的 TPE 材料绝对是您不二之选。此外，我们特别开发的 TPE 能够完全符合阻燃和供水安全等法规。

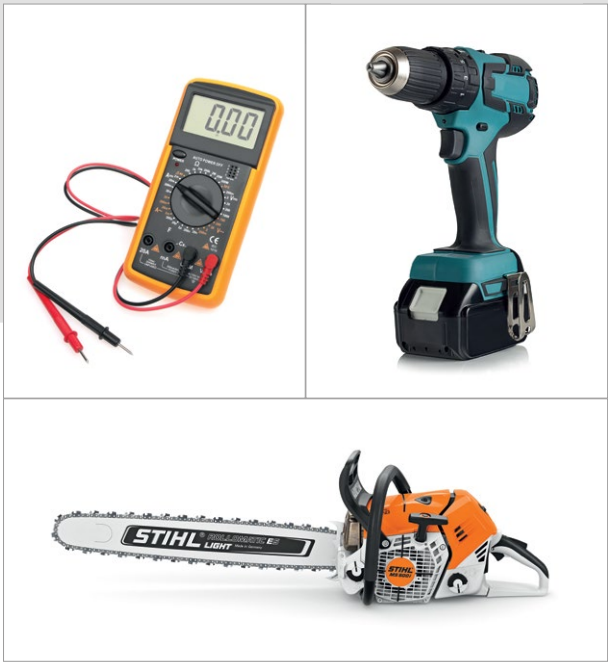
我们的轻质 TPE 密度低至 0.7 g/cm^3 ，可真正减轻各应用组件和最终产品的重量。

APPLICATION AREAS

GETTING THE JOB DONE EVERYWHERE

应用领域

TPE 无处不在, 放心, 可靠



TOOLS 工具

- Garden equipment
- Hand tools
- Measuring devices
- Power tools
- 园艺设备
- 手动工具
- 测量设备
- 电动工具



DRINKING WATER & SANITARY 饮用水和卫生用品

- Gaskets
- Hoses
- Shower heads
- Sprinkler systems (garden, agriculture)
- 垫圈
- 软管
- 淋浴头
- 洒水系统 (花园、农业)



HOUSEHOLD APPLIANCES 家用电器

- Cleaning devices
- Coffee machines
- Mixers
- Vacuum cleaners
- 清洁设备
- 咖啡机
- 搅拌机
- 吸尘器



CONSUMER ELECTRONICS 消费电子产品

- E-scooters & e-bikes
- Home entertainment
- Music & audio devices
- Navigation devices
- Wearables & watches
- 电动滑板车和电动自行车
- 家庭娱乐
- 音乐和音频设备
- 导航设备
- 可穿戴设备和手表

APPLICATION AREAS

GETTING THE JOB DONE EVERYWHERE

应用领域

TPE 无处不在, 放心, 可靠



ELECTRICS & ELECTRONICS 电气与电子

- Battery systems
- Grommets
- Plugs
- 电池系统
- 垫圈
- 插头



WHITE GOODS 白色家电

- Dishwasher
- Dryer
- Refrigerators
- 洗碗机
- 烘干机
- 冰箱



BUILDING & CONSTRUCTION 建筑施工

- Fire protection
- Gaskets
- Window and door seals
- 防火材料
- 垫圈
- 门窗密封条

MATERIAL PROPERTIES

STAND-ALONE OR IN COMBINATION

材料特性

单独加工或多组分包胶



ADHESION

Made for each other

Thanks to their optimized adhesion properties, TPEs can be used successfully in multi-material components. Nowadays, they are vital in the manufacturing of household appliances and power tools.

包胶力

完美搭配

凭借其出众的包胶性能，TPE 可以成功应用于多材料组件中。如今，它们在家用电器和电动工具的制造中发挥着至关重要的作用。



TACTILE QUALITIES

Feels more than good

Durability and surface feel are crucial qualities. A high surface quality offers products with added value. KRAIBURG TPE can adjust the formulas used in materials to influence the grip and touch qualities. As an example, TPEs are already used in a wide variety of handles.

触感品质

比良好更卓越的触感

耐用性和表面触感是产品至关重要的品质。优秀的表面触感能给产品带来更多价值。凯柏胶宝® 可以调整材料配方，改变抓握性和触感。例如，TPE 已广泛用于各式各样的手柄应用当。



COLORING BEHAVIOR

Setting colorful highlights

Visual impression counts. An engaging appearance always means added value. KRAIBURG TPE can match your own individual color to set yourself apart. Our inhouse coloring team provides the right shade of color for TPE compounds with great precision. All of our colors are high-quality and durable, and you can rely on our global supply security.

着色性能

打造色彩焦点

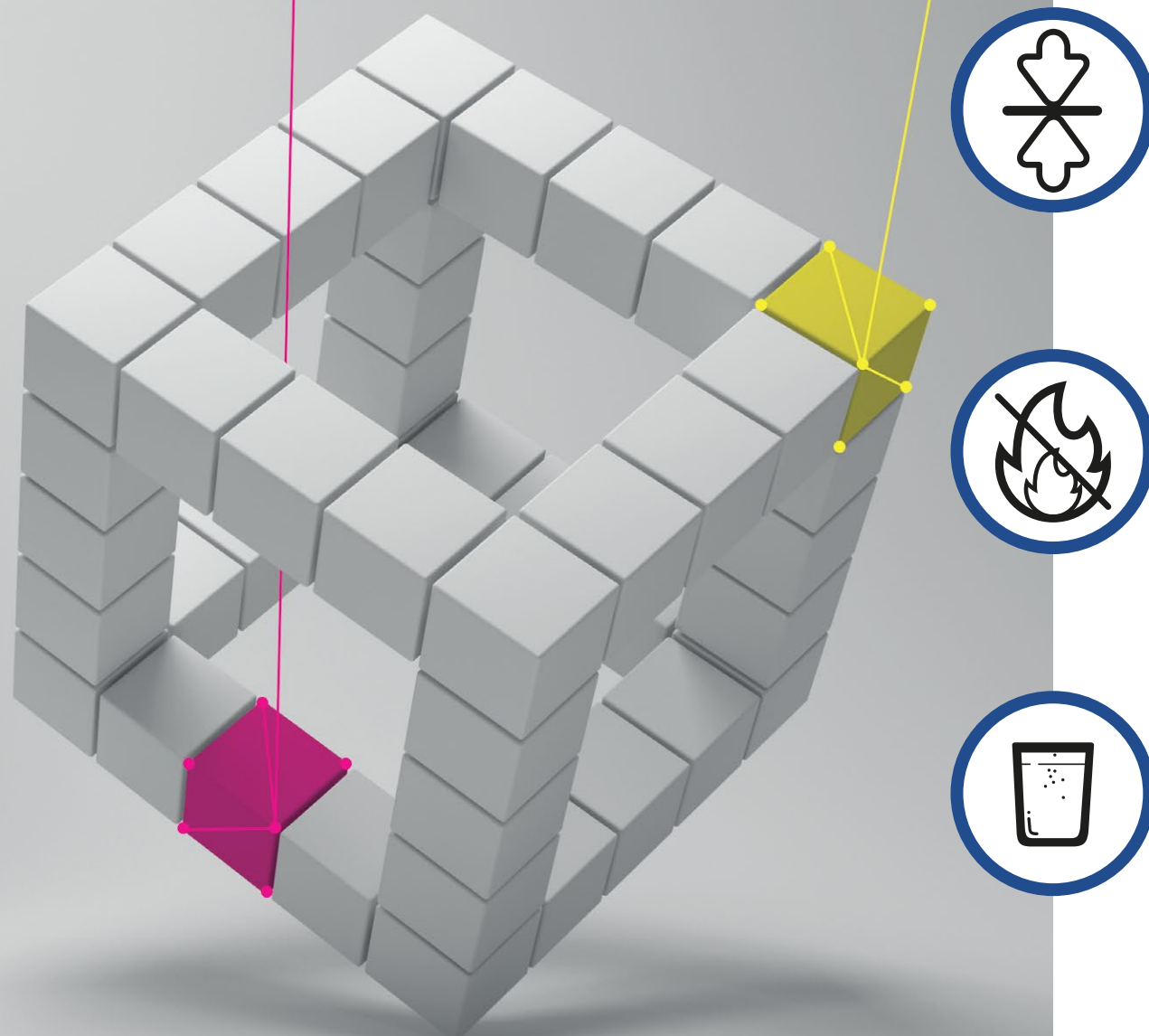
视觉印象非常重要。引人入胜的外观始终都具有提升价值的效果。凯柏胶宝® 可以帮助您展示独一无二的色彩，让您的产品更加与众不同。我们的配色团队可为 TPE 化合物设计提供极高精度的准确色调。我们所有的颜色都具有高品质和耐用的特点，我们的全球供应可保证您的生产持续性。

MATERIAL PROPERTIES

STAND-ALONE OR IN COMBINATION

材料特性

单独加工或多组分包胶



ELASTIC RECOVERY

Reliable performance

Our TPEs offer optimized compression set characteristics – whether it is in delicately shaped seals for hearing aids or in sturdy components for household appliances and power tools. Specially developed compounds help ensure that end products comply with specific standards for watertightness and dustproofness.

弹性恢复

可靠的性能表现

我们的 TPE 具有优秀的压缩永久变形性能，无论是用于助听器的精巧密封件，还是用于家用电器和电动工具的牢固部件，都能提供出色的弹性恢复力。特殊开发的化合物，可帮助确保最终产品符合防水和防尘的特定标准。

FLAME PROTECTION

Safety: a hot topic

Fire protection is a constant topic in electrical and electronic applications of all kinds. KRAIBURG TPE takes environmental and health considerations into account by offering halogen-free fire protection system solutions according to IEC 61249-2-21.

防火保护

安全：一个热点话题

防火始终是各种电气和电子应用中的重中之重。凯柏胶宝® 严格遵照 IEC 61249-2-21 提供无卤素防火系统解决方案，致力于保障环境和健康安全。

DRINKING WATER

Tested and approved

Strict regulations require safe and intelligent material solutions. These TPEs have performed well in applications involving direct contact with drinking water such as tubes and fittings. They feature a low kinking tendency and excellent adhesion to PP & PE.

饮用水

经过测试和认证

严格的法规需要安全和智能的材料解决方案。我们的 TPE 产品在管材和配件等饮用水直接接触应用中表现非凡。它们具有低扭结倾向，并且对 PP 和 PE 均有优异的包胶力。

符合欧洲最重要的饮用水标准。

Meet most important European drinking water standard.

CUSTOM-ENGINEERED PROPERTIES

WHAT ARE YOUR REQUIREMENTS?

定制设计解决方案

产品要求，您说了算

The TPE solutions are as multifaceted as the industry itself. Our compounds are established atop the industry in different sectors. For us, there is no such thing as a niche market.

Tell us about the challenges you may be facing while implementing your product idea and we will be pleased to help you improve your product's quality and functionality.

Have we left anything out that you need? Then feel free to contact us.

我们提供应用于各个行业的 TPE 解决方案。如今，我们的化合物已在这些行业中获得了良好的口碑。对于我们而言，所有市场，无论规模大小，都是我们认真探索和服务的对象。

请告诉我们您的产品创意落地时遇到的障碍，我们将努力帮助您改善产品的质量和功能。

还有其他需求？请随时与我们联系。





SERVICE

GOOD ADVICE IS INCLUDED

服务

中肯建议，与您同行

Your satisfaction is the standard we set for our work. To ensure the highest level of customer satisfaction, we have developed a quality assurance approach that covers the products, processes, and people involved. Our laboratories are designed and equipped to follow the latest state of the art technology.

In other words: you can tell us what challenges you are facing and we will dedicate ourselves to finding the best possible solution. Custom-engineered and extremely high-quality compounds provide the basis for this.

In addition, you will be able to benefit from our technical expertise, built up over many years of experience. Thanks to personal on-site consulting and unique global customer service, you will be able to enjoy the maximum support.

您的满意是我们的宗旨。为确保客户绝对的满意度，我们制定出了一项涵盖产品、加工和人员的质量保证方针。另外，我们拥有精心设计、设备齐全的实验室，以及最先进的技术。

简而言之，您只需告诉我们您所面临的挑战，凯柏胶宝® 将竭力提供定制设计和优质产品，为您给出理想的解决方案。

此外，我们在材料领域深耕多年所获得的丰富经验以及精进的技术专长，也能让你获益。依靠现场面对面咨询和独特的全球化客户服务，我们将为您提供最强力的支持。



SUSTAINABILITY

ALWAYS LOOKING TO THE FUTURE

可持续发展

立足当下，着眼未来

EXCELLENCE BY TRANSPARENCY

We rely on certified processes and established standards

KRAIBURG TPE acts and operates in accordance with recognized standards. These are:

- Integrated quality, environment and energy management systems
- Certified GRS standard for products produced in Malaysia
- Product Carbon Footprint of KRAIBURG TPE-Compounds
- Climate targets based on the guidelines of the Science Based Target Initiative (SBTi): Starting from the base year of 2021, the company's scope 1 and scope 2 CO₂e emissions are to be reduced by 46.2 percent by 2031, scope 3 CO₂e by 27.5 percent.
- ISCC PLUS certification available for many products in the EMEA sales region
- Carbon Disclosure Project (CDP) rating since 2020
- EcoVadis: The platform classifies the sustainability of companies in holistic ratings. Our commitment to sustainability at our locations has been awarded "Gold" and "Silver" in the past.

以透明度来追求卓越性

我们依赖经过认证的流程和确立的标准

凯柏胶宝® 遵循公认的标准行事和运营。这些标准包括：

- 综合质量、环境和能源管理系统
- 马来西亚生产基地所生产的产品都经过 GRS 标准认证
- 凯柏胶宝® 精选 TPE 化合物的产品碳足迹
- 基于科学基准倡议 (SBTi) 指南的气候目标：从2021年基准年开始，公司计划到2031年将范围1和范围2的二氧化碳当量 (CO₂e) 排放量减少46.2%，将范围3的二氧化碳当量 (CO₂e) 排放量减少27.5%。
- ISCC PLUS 认证适用于 EMEA 销售地区的产品
- 2020 年以来对碳披露项目 (CDP) 的评级
- EcoVadis: 该平台对公司的可持续发展进行了整体评级。我们对可持续发展的承诺曾获得过“金牌”和“银牌”奖项。



TPE PORTFOLIO SERIES

INDUSTRY SECTOR

TPE 组合系列

工业部门

热塑宝 K THERMOLAST® K	包胶材料 Adhesion Materials	Page
AD1	ABS, PC, PC/ABS	21
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AD1/AS	ABS, PC, PC/ABS	22
AD1/CS	ABS, PBT, PC, PC/ABS	22
AD/PA	PA	23
AD/PA/CS	PA	23
AD/POM	POM	24
CS	PP	25
EC	PP	26
EC/PA	PP	26
EX	PP	27
EX/UV	PP	27
FR2	PP	28
FR/AP	PP	28
GP/FG	PP	29
LW/CS/UV	PP	30
LW/UV	PP	31
VS/AD/HM	ABS, ASA, PA, PC, PC/ABS, SAN	32

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热塑宝 DW THERMOLAST® DW	包胶材料 Adhesion Materials	Page
DW/CS2	PE, PP	35
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科柔宝® COPEC®	包胶材料 Adhesion Materials	Page
VS/AD1	ABS, ASA, PA, PC, PC/ABS, SAN	37

THERMOLAST® K | 热塑宝 K

Series 系列	The AD1 series is your material solution for applications with adhesion to polar thermoplastics such as ABS, PC and PC/ABS. The compounds are available in black and natural colors. Natural color variants can be colored in many different ways.
AD1	AD1 系列材料解决方案适用于包胶极性热塑性材料（如 ABS、PC 和 PC/ABS）应用。这类化合物可选黑色和本色。本色产品系列可用多种不同方式着色。

Processing Method : Extrusion, Injection Molding | 加工方法 : 挤塑, 注塑成型

Compound Name	化合物名称	Hardness 硬度	Color 颜色	Adhesion 包胶
TCxMLB		50 – 80 Shore A	Natural	ABS, PC, PC/ABS
TCxMLZ		50 – 80 Shore A	Black	
TCxMSB		30 – 40 Shore A	Natural	
TCxMSZ		30 – 40 Shore A	Black	

Typical Applications	典型应用
- Bumpers - Door sills - Function and design elements - Grommets - Handles (tools and power tools, etc.) - Seals - Soft touch surface (thumb wheels, push buttons, switches) - Thumb wheels	- 保险杠 - 门槛 - 功能和设计应用 - 垫圈 - 手柄 (手动工具和电动工具等) - 密封件 - 柔软的表面触感 (拨轮、按键、开关) - 拨轮
Material Advantages	材料属性
- Adhesion to ABS, ASA, PC, PC/ABS, SAN - Colorable - Controlled level of emission & odor, suitable for automotive interior - Insert molding possible - Soft touch surface - Soft, non-sticky haptic	- 包胶 ABS、ASA、PC、PC/ABS、SAN - 可着色 - 可控的排放和气味水平，适合汽车内饰 - 可嵌入成型 - 柔软的表面触感 - 柔软不粘的触感
Regulations / Approvals	法规 / 批准
49 CFR §571.302 (FMVSS 302) - BMW GS 93042 - DIN 75201-B - Fogging - DIN EN ISO 105-B06 Method 3 - Ford WSS-M2D507 - Mercedes-Benz DBL 5562 - Renault 03-10-104 - Stellantis B62 0300 - UL 94 HB - VDA 270 B3 - Odor - VW 50123	49 CFR §571.302 (FMVSS 302) - 宝马 GS 93042 - DIN 75201-B – 雾化值 - DIN EN ISO 105-B06 Method 3 - 福特 WSS-M2D507 - 奔驰 DBL 5562 - 雷诺 03-10-104 - Stellantis B62 0300 - UL 94 HB - VDA 270 B3 – 气味 - VW 50123

THERMOLAST® K | 热塑宝 K

Series 系列	The AD1/AP series is your material solution for automotive interior applications with adhesion to polar thermoplastics such as ABS, PC and PC/ABS for Asia Pacific Market. The compounds are available in black colors.
AD1/AP	AD1/AP 系列适用于汽车内饰应用或工业应用的材料解决方案，包胶极性热塑性塑料（如ABS、PC、PC/ABS）。这些化合物有黑色可供选择。

Processing Method : Injection Molding | 加工方法 : 注塑成型

Compound Name	化合物名称	Hardness 硬度	Color 颜色	Adhesion 包胶
TCxPGG-BLCK		50 – 80 Shore A	Black	ABS, PC, PC/ABS

Typical Applications	典型应用
- Automotive Interior - Bumpers - Car mats - Door sills - Function and design elements - Grommets - Handles (tools and power tools, etc.) - Seals - Soft touch surface (thumb wheels, push buttons, switches) - Thumb wheels	- 汽车内饰 - 保险杠 - 车垫 - 门槛 - 功能和设计应用 - 垫圈 - 手柄 (手动工具和电动工具等) - 密封件 - 柔软的表面触感 (拨轮、按键、开关) - 拨轮
Material Advantages	材料属性
- Adhesion to ABS, PC, PC/ABS - Adhesion to POM - Automotive Interior UV Resistance - Controlled level of emission & odor, suitable for automotive interior - In-process recycling possible - Insert molding possible - Soft touch surface - Temperature stability up to 90 °C	- 包胶 ABS、PC、PC/ABS - 包胶 POM - 适用于汽车内饰，具有抗紫外线性能 - 可控的排放和气味水平，适合汽车内饰 - 可在制造过程中回收利用 - 可嵌入成型 - 柔软的表面触感 90 °C下的温度稳定性

THERMOLAST® K | 热塑宝 K

Series 系列	The AD1/AS series is your material solution for applications with static-dissipative requirements. The compounds have medium electrical resistance and good adhesion to ABS, PC and PC/ABS. The compounds are available in natural and colored variants.
AD1/AS	AD1/AS系列是解决具有静电消散要求的应用所需的材料解决方案。这些化合物具有中等电阻，并且与ABS、PC和PC/ABS具有良好的包胶性能。这些化合物有本色和有色的类型可供选择。

Processing Method : Injection Molding | 加工方法 :注塑成型

Compound Name	化合物名称	Hardness	硬度	Color	颜色	Adhesion	包胶
TCxPAS-BLCK		50 – 80 Shore A		Black	黑色	ABS, PC, PC/ABS	
TCxPAS-NTRL		50 – 80 Shore A		Natural	本色		
Typical Applications				典型应用			
▪ Cable clips ▪ Cable holders ▪ Electric and electronic components ▪ Games consoles ▪ Handles (hand tools and power tools, etc.) ▪ Robotics parts ▪ Soft touch for grips, switches and mats				▪ 电缆固定夹 ▪ 电缆支架 ▪ 电气和电子部件 ▪ 游戏主机 ▪ 手柄 (手动工具和电动工具等) ▪ 机器人零部件 ▪ 柔软触感可用于握把 · 开关及垫子			
Material Advantages				材料属性			
▪ Adhesion to ABS, PC, PC/ABS ▪ Colorable ▪ Medium resistivity ▪ Optimized mechanical properties ▪ Reduced dust build-up ▪ Soft, non-sticky haptic ▪ Temperature stability up to 80°C ▪ Thermoplastic alternative to elastomers				▪ 包胶 ABS、PC、PC/ABS ▪ 可着色 ▪ 中等电阻率 ▪ 优异的机械性能 ▪ 减少灰尘累积 ▪ 柔软不粘的触感 ▪ 80 °C 下的温度稳定性 ▪ 弹性体的热塑性替代品			

THERMOLAST® K | 热塑宝 K

Series 系列	The AD1/CS series is your material solution for applications with optimized compression set and adhesion to polar thermoplastics such as ABS, PC, PC/ABS, and PBT. The compounds are available in black and natural colors. Natural color variants can be colored in many different ways.
AD1/CS	AD1/CS 系列材料解决方案适用于要求良好压缩永久变形性能和包胶极性热塑性材料（如 ABS、PC、PC/ABS 和 PBT）的应用。这类化合物可选黑色和本色。本色产品系列可用多种不同方式着色。

Processing Method : Extrusion, Injection Molding | 加工方法 :挤塑, 注塑成型

Compound Name	化合物名称	Hardness	硬度	Color	颜色	Adhesion	包胶	
TPxVCN		50 – 80 Shore A		Natural	本色	ABS, PBT, PC, PC/ABS		
TPxVCZ		50 – 80 Shore A		Black	黑色			
Typical Applications				典型应用				
▪ Bumpers ▪ Cable clips ▪ Function and design elements ▪ Grommets ▪ Seals ▪ Soft touch surface (thumb wheels, push buttons, switches)				▪ 保险杠 ▪ 电缆固定夹 ▪ 功能和设计应用 ▪ 垫圈 ▪ 密封件 ▪ 柔软的表面触感 (拨轮、按键、开关)				
Material Advantages				材料属性				
▪ Adhesion to ABS, ASA, PC, PC/ABS, SAN ▪ Adhesion to PBT ▪ Optimized compression set ▪ Optimized mechanical properties				▪ 包胶 ABS、ASA、PC、PC/ABS、SAN ▪ 包胶 PBT ▪ 出色的压缩永久变形性能 ▪ 优异的机械性能				
Regulations / Approvals				法规 / 批准				
▪ 49 CFR §571.302 (FMVSS 302) ▪ BMW GS 93042 ▪ Mercedes-Benz DBL 5562 ▪ Stellantis B62 0300 ▪ UL 94 HB ▪ VW 50123				▪ 49 CFR §571.302 (FMVSS 302) ▪ 宝马 GS 93042 ▪ 奔驰 DBL 5562 ▪ Stellantis B62 0300 ▪ UL 94 HB ▪ VW 50123				

THERMOLAST® K | 热塑宝 K

Series 系列	The AD/PA series is your material solution for applications with adhesion to PA. The compounds are available in black and natural colors. Natural color variants can be colored in many different ways.
AD/PA	AD/PA 系列材料解决方案适用于包胶 PA 应用。这类化合物可选黑色和本色。本色产品系列可用多种不同方式着色。

Processing Method : Injection Molding | 加工方法 :注塑成型

Compound Name	化合物名称	Hardness	硬度	Color	颜色	Adhesion	包胶
TCxPAN		20 – 80 Shore A		Natural	本色	PA	
TCxPAZ		20 – 80 Shore A		Black	黑色		
Typical Applications				典型应用			
▪ Cable clips ▪ Function and design elements ▪ Grommets ▪ Handles (hand tools and power tools, etc.) ▪ Thumb wheels				▪ 电缆固定夹 ▪ 功能和设计应用 ▪ 垫圈 ▪ 手柄 (手动工具和电动工具等) ▪ 拨轮			
Material Advantages				材料属性			
▪ Adhesion to PA6 and PA6.6, up to 50% glass fiber ▪ Adhesion to PA12 ▪ Colorable ▪ Dry haptics ▪ Halogen-free (according to IEC 61249-2-21) ▪ Temperature stability up to 90 °C				▪ 包胶 PA6 和 PA6.6，玻璃纤维高达 50％ ▪ 包胶 PA12 ▪ 可着色 ▪ 干爽触感 ▪ 不含卤素 (符合 IEC 61249-2-21 标准) ▪ 90 °C 下的温度稳定性			
Regulations / Approvals				法规 / 批准			
▪ 49 CFR §571.302 (FMVSS 302) ▪ BMW GS 93042 ▪ DIN 75201-B – Fogging ▪ DIN EN ISO 105-B06 Method 3 ▪ GM GMW15702 ▪ Mercedes-Benz DBL 5562 ▪ Renault 03-10-104 ▪ Stellantis B62 0300 ▪ UL 94 HB ▪ VW 50123				▪ 49 CFR §571.302 (FMVSS 302) ▪ 宝马 GS 93042 ▪ DIN 75201-B – 雾化值 ▪ DIN EN ISO 105-B06 Method 3 ▪ 通用汽车 GMW15702 ▪ 奔驰 DBL 5562 ▪ 雷诺 03-10-104 ▪ Stellantis B62 0300 ▪ UL 94 HB ▪ VW 50123			

THERMOLAST® K | 热塑宝 K

Series 系列	The AD/PA/CS series is your material solution for applications with excellent adhesion to PA and sealing function. The compounds are available in black and natural colors. Natural color variants can be colored in many different ways.
AD/PA/CS	AD/PA/CS 系列材料解决方案适用于对 PA 有卓越包胶性和出色压缩永久变形性能的应用领域。这类化合物有黑色和本色可供选择。本色产品系列可用多种不同方式着色。

Processing Method : Extrusion, Injection Molding | 加工方法 :挤塑, 注塑成型

Compound Name	化合物名称	Hardness	硬度	Color	颜色	Adhesion	包胶
TCxPCN		40 – 80 Shore A		Natural	本色	PA	
TCxPCZ		35 – 75 Shore A		Black	黑色		
Typical Applications				典型应用			
- Cable clips - Fastenings - Grommets - Membranes - Seals				- 电缆固定夹 - 紧固件 - 垫圈 - 薄膜 - 密封件			
Material Advantages				材料属性			
- Adhesion to PA6 and PA6.6, up to 50% glass fiber - Optimized compression set - Optimized flow properties				- 包胶 PA6 和 PA6.6，玻璃纤维高达 50％ - 出色的压缩永久变形性能 - 优异的流动性			
Regulations / Approvals				法规 / 批准			
- BMW GS 93042 - GM GMW15702 - Mercedes-Benz DBL 5562 - Renault 03-10-104 - Stellantis B62 0300 - UL 94 HB - VW 50123				- 宝马 GS 93042 - 通用汽车 GMW15702 - 奔驰 DBL 5562 - 雷诺 03-10-104 - Stellantis B62 0300 - UL 94 HB - VW 50123			

THERMOLAST® K | 热塑宝 K

Series 系列

AD/POM

The AD/POM series is your material solution for applications with adhesion to POM. The compounds are available in black and natural colors. Natural color variants can be colored in many different ways.

AD/POM 系列材料解决方案适用于包胶 POM 应用。这类化合物可选黑色和本色。本色产品系列可用多种不同方式着色。

Processing Method : Extrusion, Injection Molding | 加工方法 : 挤塑, 注塑成型

Compound Name	化合物名称	Hardness 硬度	Color 颜色	Adhesion 包胶
TCxHAA		50 – 80 Shore A	Natural 本色	POM
TCxHAZ		50 – 80 Shore A	Black 黑色	
TCxHBA		60 – 70 Shore A	Natural 本色	
TCxHBZ		60 – 70 Shore A	Black 黑色	
Typical Applications		典型应用		
▪ Bumpers ▪ Components for conveying systems ▪ Function and design elements ▪ Handles (tools and power tools, etc.) ▪ Thumb wheels		▪ 保险杠 ▪ 输送系统零件 ▪ 功能和设计应用 ▪ 手柄 (手动工具和电动工具等) ▪ 拨轮		
Material Advantages		材料属性		
▪ Adhesion to POM ▪ Colorable ▪ Soft touch surface		▪ 包胶 POM ▪ 可着色 ▪ 柔软的表面触感		
Regulations / Approvals		法规 / 批准		
▪ 49 CFR §571.302 (FMVSS 302) ▪ BMW G5 93042 ▪ DIN 75201-B – Fogging ▪ DIN EN ISO 105-B06 Method 3 ▪ GM GMW15702 ▪ Mercedes-Benz DBL 5562 ▪ Renault 03-10-104 ▪ VDA 270 B3 – Odor ▪ VW 50123		▪ 49 CFR §571.302 (FMVSS 302) ▪ 宝马 G5 93042 ▪ DIN 75201-B – 雾化值 ▪ DIN EN ISO 105-B06 Method 3 ▪ 通用汽车 GMW15702 ▪ 奔驰 DBL 5562 ▪ 雷诺 03-10-104 ▪ VDA 270 B3 – 气味 ▪ VW 50123		

THERMOLAST® K | 热塑宝 K

Series 系列

CS

The CS series is your material solution for sealing applications with adhesion to PP. The compounds are available in black and natural colors. Natural color variants can be colored in many different ways.

CS 系列材料解决方案适用于密封应用和包胶 PP 应用。这类化合物可选黑色和本色。本色产品系列可用多种不同方式着色。

Processing Method : Extrusion, Injection Molding | 加工方法 : 挤塑, 注塑成型

Compound Name	化合物名称	Hardness	硬度	Color	颜色	Adhesion	包胶
TCxCSN		30 – 90 Shore A		Natural	本色	PP	
TCXCSZ		30 – 90 Shore A		Black	黑色		
Typical Applications		典型应用					
▪ Applications in e-mobility ▪ Bumpers ▪ Cable clips ▪ Fastenings ▪ Grommets ▪ Membranes ▪ Seals		▪ 电动汽车应用 ▪ 保险杠 ▪ 电缆固定夹 ▪ 紧固件 ▪ 垫圈 ▪ 薄膜 ▪ 密封件					
Material Advantages		材料属性					
▪ Adhesion to PP ▪ In-process recycling possible ▪ Optimized compression set ▪ Optimized mechanical properties ▪ Optimized resilience ▪ Resistance to polar coolants		▪ 包胶 PP ▪ 可在制造过程中回收利用 ▪ 出色的压缩永久变形性能 ▪ 优异的机械性能 ▪ 出色的弹性 ▪ 耐极性冷却剂					
Regulations / Approvals		法规 / 批准					
▪ 49 CFR §571.302 (FMVSS 302) ▪ BMW G5 93042 ▪ DIN 75201-B - Fogging ▪ Mercedes-Benz DBL 5562 ▪ PV 3929 Kalahari (1 year) ▪ PV 3929 Kalahari (2 years) ▪ PV 3930 Florida (1 year) ▪ PV 3930 Florida (2 years) ▪ Renault 03-10-104 ▪ Stellantis B62 0300 ▪ Stellantis MS-DC-242 ▪ UL 94 HB ▪ VW 50123		▪ 49 CFR §571.302 (FMVSS 302) ▪ 宝马 G5 93042 ▪ DIN 75201-B - 雾化值 ▪ 奔驰 DBL 5562 ▪ PV 3929 卡拉哈里试验 (1 年) ▪ PV 3929 卡拉哈里试验 (2 年) ▪ PV 3930 佛罗里达试验 (1 年) ▪ PV 3930 佛罗里达试验 (2 年) ▪ 雷诺 03-10-104 ▪ Stellantis B62 0300 ▪ Stellantis MS-DC-242 ▪ UL 94 HB ▪ VW 50123					

THERMOLAST® K | 热塑宝 K

Series 系列	The EC series is your material solution for applications with increased requirements on electrical conductivity. The materials come with very low resistivity and adhesion to polypropylene. The compounds are halogen-free according to IEC 61249-2-21. They are available in black colors only.
EC	EC 系列材料解决方案适用于电导率需求不断增加的应用领域。这种材料的电阻率极低，且对 PP 有良好的包胶性。根据 IEC 61249-2-21 标准，这类化合物不含卤素，仅有黑色可供选择。

Processing Method : Extrusion, Injection Molding | 加工方法 : 挤塑, 注塑成型

Compound Name	化合物名称	Hardness 硬度	Color 颜色	Adhesion 包胶
TCxOEX-BLCK		70 – 80 Shore A	Black 黑色	PP
Typical Applications	典型应用			
- Dead man's switches - Electric and electronic components - ESD protection - Flexible conductors - Grip applications - Grommets - Sensors - Stylus				- 紧急制动开关 - 电气电子部件 - ESD 保护 - 柔性导体 - 把手应用 - 垫圈 - 传感器 - 触控笔
Material Advantages	材料属性			
- Adhesion to PP - Electrical conductivity - Halogen-free (according to IEC 61249-2-21) - In-process recycling possible - Low resistivity - Soft, non-sticky haptic				- 包胶 PP - 导电性 - 不含卤素 (符合 IEC 61249-2-21 标准) - 可在制造过程中回收利用 - 低电阻率 - 柔软不粘的触感

THERMOLAST® K | 热塑宝 K

Series 系列	The EC/PA series is your material solution for applications with requirements on electrical conductivity. The materials come with low resistivity and adhesion to polyamides and polypropylene. The compounds are halogen-free according to IEC 61249-2-21. They are available in black colors only.
EC/PA	EC/PA 系列材料解决方案适用于有电导率需求的应用领域。这种材料的电阻率低，且对 PA 和 PP 有良好的包胶性。根据 IEC 61249-2-21 标准，这类化合物不含卤素。仅有黑色可选。

Processing Method : Injection Molding | 加工方法 : 注塑成型

Compound Name	化合物名称	Hardness 硬度	Color 颜色	Adhesion 包胶
TCxNEG-BLCK		70 – 80 Shore A	Black 黑色	PP
Typical Applications	典型应用			
- Dead man's switches - Electric and electronic components - ESD protection - Flexible conductors - Grip applications - Grommets - Sensors - Stylus				- 紧急制动开关 - 电气电子部件 - ESD 保护 - 柔性导体 - 把手应用 - 垫圈 - 传感器 - 触控笔
Material Advantages	材料属性			
- Adhesion to PP - Adhesion to PA6 and PA6.6 - Electrical conductivity - Halogen-free (according to IEC 61249-2-21) - In-process recycling possible - Low resistivity - Soft, non-sticky haptic				- 包胶 PA6 和 PA6.6 - 包胶 PP - 导电性 - 不含卤素 (符合 IEC 61249-2-21 标准) - 可在制造过程中回收利用 - 低电阻率 - 柔软不粘的触感

THERMOLAST® K | 热塑宝 K

Series 系列	The EX series is your material solution for indoor extrusion applications. The compounds are available in black and natural colors. Natural color variants can be colored in many different ways.
EX	EX 系列是室内挤制加工应用领域的材料解决方案，并有黑色和本色可供选择。本色产品系列可用多种不同方式着色。

Processing Method : Extrusion, Injection Molding | 加工方法 : 挤塑, 注塑成型

Compound Name	化合物名称	Hardness 硬度	Color 颜色	Adhesion 包胶
TPxCDB TPxCDZ		30 – 90 Shore A 30 – 90 Shore A	Natural Black 本色 黑色	pp
Typical Applications	典型应用			
- Distance profiles - Edge guards - Profiles for furniture - Seals for doors				- 远距离外形 - 防撞角 - 家具外形 - 门密封条
Material Advantages	材料属性			
- Adhesion to PP - Alternative material to PVC-P - Halogen-free (according to IEC 61249-2-21) - In-process recycling possible - No interaction with other materials (e.g. PVC-U, PC, PMMA) - Resistance to acrylic paints - Weldable (Infrared & Mirror)				- 包胶 PP - PVC-P 的替代材料 - 不含卤素 (符合 IEC 61249-2-21 标准) - 可在制造过程中回收利用 - 与其他材料 (如 PVC-U、PC, PMMA) - 耐丙烯颜料 - 可焊接 (红外线和镜片)

THERMOLAST® K | 热塑宝 K

Series 系列	The EX/UV series is your material solution for extrusion applications with increased requirements for UV resistance. The compounds are available in black, grey and natural colors. Natural color variants can be colored in many different ways. Some compounds of the series are approved according to RAL GZ 716 and/or CSTB QB36.
EX/UV	EX/UV 系列材料解决方案适用于在抗紫外线方面要求很高的挤塑应用。这类化合物可选黑色、灰色和本色。本色产品系列可用多种不同方式着色。本系列的部分化合物符合 RAL GZ 716 和/或 CSTB QB36 标准。

Processing Method : Extrusion, Injection Molding | 加工方法 : 挤塑, 注塑成型

Compound Name	化合物名称	Hardness 硬度	Color 颜色	Adhesion 包胶
TPxHPG TPxHPN TPxSKZ		50 – 70 Shore A 50 – 90 Shore A 50 – 70 Shore A	Grey Natural Black 灰色 本色 黑色	pp
Typical Applications	典型应用			
- Distance profiles - Door and window seals for outdoor applications - Edge guards				- 远距离外形 - 户外应用门窗密封条 - 门密封条
Material Advantages	材料属性			
- Adhesion to PP - Alternative material to PVC-P - Halogen-free (according to IEC 61249-2-21) - In-process recycling possible - No interaction with other materials (e.g. PVC-U, PC, PMMA) - Resistance to acrylic paints - UV and weathering resistance - Weldable (Infrared & Mirror)				- 包胶 PP - PVC-P 的替代材料 - 不含卤素 (符合 IEC 61249-2-21 标准) - 可在制造过程中回收利用 - 与其他材料 (如 PVC-U、PC, PMMA) - 耐丙烯颜料 - 抗紫外线和耐候性 - 可焊接 (红外线和镜片)
Regulations / Approvals	法规 / 批准			
- CSTB QB36 - RAL-GZ 716				- CSTB QB36 - RAL-GZ 716

THERMOLAST® K | 热塑宝 K

Series 系列	The FR/AP series is your material solution for applications with flame retardant requirements for the Asia Pacific market. The compounds are halogen-free according to IEC 61249-2-21. The UL94 V-0 (3.0 mm) certificate is valid for available hardness range and for natural and coloured compounds.
FR/AP	FR/AP 系列材料解决方案适用于亚太地区有阻燃需求的低壁厚应用。这类化合物不含卤素（根据 IEC 61249-2-21 标准）。UL94 V-0 (3.0 mm) 认证书对可用的硬度范围和本色及有色化合物有效。

Processing Method : Extrusion, Injection Molding | 加工方法 : 挤塑, 注塑成型

Compound Name	化合物名称	Hardness 硬度	Color 颜色	Adhesion 包胶
TCxFLN TCxFLZ		40 – 90 Shore A 40 – 90 Shore A	Natural Black 本色 黑色	pp
Typical Applications		典型应用		
- Cable management systems e.g. cable holders, cable glands and grommets - Gaskets for electric and electronic applications e.g. cable boxes		- 电缆管理系统，例如电缆支架、电缆密封套和索环 - 电气和电子应用垫片， 例如电缆箱		
Material Advantages		材料属性		
- Adhesion to PP - Halogen-free (according to IEC 61249-2-21) - High glow-wire flammability index (GWFI) - In-process recycling possible - Precoloration in all colors - Self-extinguishing, no release of burning droplets - Temperature stability up to 85 °C		- 包胶 PP - 不含卤素 (符合 IEC 61249-2-21 标准) - 高灼热丝可燃性指数 (GWFI) - 可在制造过程中回收利用 - 可进行所有颜色的预着色 - 自熄性，不会产生燃烧液滴 85°C 下的温度稳定性		
Regulations / Approvals		法规 / 批准		
UL 94 V-0 (3 mm)		UL 94 V-0 (3 mm)		

THERMOLAST® K | 热塑宝 K

Series 系列	The FR2 series is your material solution for applications with high flame-retardant requirements. The compounds are halogen-free according to IEC 61249-2-21. The UL94 V-0 (1.5 mm) certificate and the classification according to DIN EN 45545-2 R22 HL2 and DIN EN 45545-2 R23 HL3 is valid for available hardness range and for natural and colored compounds.
FR2	FR2 系列材料解决方案适用于有高阻燃需求的应用。根据 IEC 61249-2-21 标准，这类化合物经认证，不含卤素。现有的硬度范围以及本色和有色化合物 UL94 V-0 (1.5 mm) 证书， DIN EN 45545-2 R22 HL 2 和 DIN EN 45545-2 R23 HL 3 的分类标准。

Processing Method : Extrusion, Injection Molding | 加工方法 : 挤塑, 注塑成型

Compound Name	化合物名称	Hardness 硬度	Color 颜色	Adhesion 包胶
TCxFTN TCxFTZ		50 – 90 Shore A / 40 Shore D 50 – 90 Shore A / 40 Shore D	Natural Black 本色 黑色	pp
Typical Applications		典型应用		
- Applications in railway sector - Cable management systems e.g. cable holders, cable glands and grommets - Electrical insulation for busbars - Gaskets for electric and electronic applications e.g. cable boxes		- 铁路行业应用 - 电缆管理系统，例如电缆支架、电缆密封套和索环 - 母线电绝缘 - 电气和电子应用垫片， 例如电缆箱		
Material Advantages		材料属性		
- Adhesion to PP - Fulfills railway requirements such as high LOI, low toxicity and smoke density - Halogen-free (according to IEC 61249-2-21) - High glow-wire flammability index (GWFI) - In-process recycling possible - No silicones added - Precoloration in all colors - Self-extinguishing, no release of burning droplets - Stability in conditions up to 60 °C and 75% humidity - Temperature stability up to 85 °C		- 包胶 PP - 符合铁路行业要求，例如高 LOI、低毒性和烟雾密度 - 不含卤素 (符合 IEC 61249-2-21 标准) - 高灼热丝可燃性指数 (GWFI) - 可在制造过程中回收利用 - 未添加有机硅 - 可进行所有颜色的预着色 - 自熄性，不会产生燃烧液滴 - 温度 60°C 和湿度 75% 条件下的材料稳定性 85°C 下的温度稳定性		
Regulations / Approvals		法规 / 批准		

- DIN EN 45545-2 R22 HL2
- DIN EN 45545-2 R23 HL3
- DIN EN 45545-2 R26
- IEC 60695-2-12:2021-10 (GWFI) 960 °C / 2 mm
- UL 94 V-0 (1.5 mm)

THERMOLAST® K | 热塑宝 K

Series 系列	The GP/FG series is your material solution for a variety of applications. It is suitable for automotive interiors. The compounds are available in black and natural colors. Natural colored variants can be colored in many different ways.
GP/FG	GP/FG 系列材料解决方案适用于汽车内饰应用和其他多种不同应用。这类化合物可选黑色和本色。本色产品系列可用多种不同方式着色。

Processing Method : Extrusion, Injection Molding | 加工方法 : 挤塑, 注塑成型

Compound Name	化合物名称	Hardness 硬度	Color 颜色	Adhesion 包胶
TCxGPN TCxGPZ		20 – 90 Shore A / 33 Shore D 20 – 90 Shore A / 34 Shore D	Natural Black 本色 黑色	pp
Typical Applications		典型应用		
- Air flap control - Air guide elements - Bumpers - Cable clips - Car mats - Fasteners - Handles (tools and power tools, adjustment lever, etc.) - Joint sealing - Seals for housings		- 空调出风口叶片 - 导风元件 - 保险杠 - 电缆固定夹 - 车垫 - 紧固件 - 手柄 (工具和电动工具， 调整杆等) - 机壳密封件 - 门缝条		
Material Advantages		材料属性		
- Adhesion to PP - Colorable - Controlled level of emission & odor, suitable for automotive interior - Dry haptics - Halogen-free (according to IEC 61249-2-21) - In-process recycling possible - Optimized mechanical properties - Soft touch surface		- 包胶 PP - 可染色 - 可控的排放和气味水平， 适合汽车内饰 - 干爽触感 - 不含卤素 (符合 IEC 61249-2-21 标准) - 可在制造过程中回收利用 - 优异的机械性能 - 柔软的表面触感		
Regulations / Approvals		法规 / 批准		

- 49 CFR §571.302 (FMVSS 302)
- BMW GS 93042
- DIN 75201-B – Fogging
- DIN EN ISO 105-B06 Method 3
- Ford WSS-M2D507
- Ford WSS-M2D516
- GM GMW15702
- Mercedes-Benz DBL 5562
- PV 3929 Kalahari (1 year)
- PV 3930 Florida (1 year)
- Renault 03-10-104
- Stellantis B62 0300
- UL 94 HB
- VDA 270 B3 – Odor
- VW 50123

- 49 CFR §571.302 (FMVSS 302)
- 宝马 GS 93042
- DIN 75201-B – 雾化值
- DIN EN ISO 105-B06 Method 3
- 福特 WSS-M2D507
- 福特 WSS-M2D516
- 通用汽车 GMW15702
- 奔驰 DBL 5562
- PV 3929 卡拉哈里试验 (1 年)
- PV 3930 佛罗里达试验 (1 年)
- 雷诺 03-10-104
- Stellantis B62 0300
- UL 94 HB
- VDA 270 B3 – 气味
- VW 50123

THERMOLAST® K | 热塑宝 K

Series 系列

LW/CS/UV

The LW/CS/UV Series is your lightweight material solution for applications with superior requirements on sealing performance. The compounds are especially suited for automotive exterior applications. They are available in black colors.

LW/CS/UV 系列具有轻质和高密封性的特点，是满足严格行业要求的理想材料选择。这些化合物适用于汽车外饰应用，并提供黑色可选。

Processing Method : Extrusion, Injection Molding | 加工方法 : 挤塑, 注塑成型

Compound Name	化合物名称	Hardness	硬度	Color	颜色	Adhesion	包胶
TLxOCW-BLCK		35 – 75 Shore A		Black	黑色	PP	
Typical Applications				典型应用			
- Automotive Exterior - Bumpers - Glass Run Channel - Grommets - Heavy-walled parts - Seals - Seals for windows and doors				- 汽车外饰 - 保险杠 - 车窗玻璃导槽 - 垫圈 - 厚壁配件 - 密封件 - 门窗密封件			
Material Advantages				材料属性			
- Adhesion to PP - In-process recycling possible - Low density - Low shrinkage properties - Low tendency to warpage - Non-sticky surface - Optimized compression set - Resilience - UV and weathering resistance				- 包胶 PP - 可在制造过程中回收利用 - 低密度 - 低收缩率 - 低翘曲倾向 - 不粘表面 - 出色的压缩永久变形性能 - 回弹性 - 抗紫外线和耐候性			
Regulations / Approvals				法规 / 批准			
49 CFR §571.302 (FMVSS 302) - Mercedes-Benz DBL 5562 - Outdoor Weathering Arizona 12 month SAE J1976 - Outdoor Weathering Arizona 24 month SAE J1976 - Outdoor Weathering Florida 12 month SAE J1976 - Outdoor Weathering Florida 24 month SAE J1976 - PV 3929 Kalahari (1 year) - PV 3929 Kalahari (2 years) - PV 3930 Florida (1 year) - PV 3930 Florida (2 years) - VW 50123				49 CFR §571.302 (FMVSS 302) - 奔驰 DBL 5562 - 室外耐候性测试 亚利桑那 12 个月 SAE J1976 - 室外耐候性测试 亚利桑那 24 个月 SAE J1976 - 室外耐候性测试 佛罗里达 12 个月 SAE J1976 - 室外耐候性测试 佛罗里达 24 个月 SAE J1976 - PV 3929 卡拉哈里试验 (1 年) - PV 3929 卡拉哈里试验 (2 年) - PV 3930 佛罗里达试验 (1 年) - PV 3930 佛罗里达试验 (2 年) - VW 50123			

THERMOLAST® K | 热塑宝 K

Series 系列

LW/UV

The LW/UV Series is your lightweight material solution for applications with high UV- and weathering resistance, especially in automotive exterior. The compounds are available in black colors.

LW/UV 系列具有轻质、抗紫外线和耐候性的特点，是满足严格行业要求的理想材料选择，尤其适合汽车外饰应用，并提供黑色可选。

Processing Method : Extrusion, Injection Molding | 加工方法 : 挤塑, 注塑成型

Compound Name	化合物名称	Hardness	硬度	Color	颜色	Adhesion	包胶
TLxOWG-BLCK		60 – 80 Shore A		Black	黑色	PP	
Typical Applications				典型应用			
- Automotive Exterior - Bumpers - Cowls gaskets - Edge guards - Function and design elements - Heavy-walled parts - Roof racks - Water deflectors				- 汽车外饰 - 保险杠 - 通风隔栅垫片 - 防撞角 - 功能和设计应用 - 厚壁配件 - 车顶架 - 导水器			
Material Advantages				材料属性			
- Adhesion to PP - In-process recycling possible - Low density - Low shrinkage properties - Low tendency to warpage - Non-sticky surface - UV and weathering resistance				- 包胶PP - 可在制造过程中回收利用 - 低密度 - 低收缩率 - 低翘曲倾向 - 不粘表面 - 抗紫外线和耐候性			
Regulations / Approvals				法规 / 批准			
49 CFR §571.302 (FMVSS 302) - Mercedes-Benz DBL 5562 - Outdoor Weathering Arizona 12 month SAE J1976 - Outdoor Weathering Arizona 24 month SAE J1976 - Outdoor Weathering Florida 12 month SAE J1976 - Outdoor Weathering Florida 24 month SAE J1976 - PV 3929 Kalahari (1 year) - PV 3929 Kalahari (2 years) - PV 3930 Florida (1 year) - PV 3930 Florida (2 years)				49 CFR §571.302 (FMVSS 302) - 奔驰 DBL 5562 - 室外耐候性测试 亚利桑那 12 个月 SAE J1976 - 室外耐候性测试 亚利桑那 24 个月 SAE J1976 - 室外耐候性测试 佛罗里达 12 个月 SAE J1976 - 室外耐候性测试 佛罗里达 24 个月 SAE J1976 - PV 3929 卡拉哈里试验 (1 年) - PV 3929 卡拉哈里试验 (2 年) - PV 3930 佛罗里达试验 (1 年) - PV 3930 佛罗里达试验 (2 年)			

THERMOLAST® K | 热塑宝® K

Series 系列

VS/AD/HM

The VS/AD/HM series is your material solution for applications with velvety surfaces and wear high resistance requirements. It convinces by its adhesion properties to polar thermoplastics as well as by its resistance to nonpolar substances, especially sebum skin grease and skin oils. The compounds are available in black and natural colors. Natural color variants can be colored in many different ways.

VS/AD/HM 系列材料解决方案适用于要求绒面触感和高度耐磨性应用。包胶极性热塑性塑料材料 具有包胶性，对非极性物质（尤其是皮肤油脂和护肤油）具有耐受性。该系列化合物有黑色和本色可供选择。本色产品系列可用多种不同方式着色。

Processing Method : Extrusion, Injection Molding | 加工方法 : 挤塑, 注塑成型

Compound Name	化合物名称	Hardness	硬度	Color	颜色	Adhesion	包胶
TCxCEN		40 – 80 Shore A		Natural	本色	ABS, ASA, PA, PC, PC/ABS, SAN	
TCxCEU		60 – 80 Shore A		Natural	本色		
TCxCEZ		40 – 80 Shore A		Black	黑色		
Typical Applications				典型应用			
- Automotive interior - Car mats - Cell phone covers - Earphones - Function and design elements - Handles (tools and power tools, etc.) - Remote controls - Soft touch surface (thumb wheels, push buttons, switches) - Wearables				- 汽车内饰 - 车垫 - 手机套 - 耳机 - 功能和设计应用 - 手柄 (手动工具和电动工具等) - 遥控器 - 柔软的表面触感 (拨轮、按键、开关) - 可穿戴设备			
Material Advantages				材料属性			
- Abrasion resistance - Adhesion to ABS, ASA, PA, PC, PC/ABS, SAN - Adhesion to PA6 and PA12 - Halogen content (chlorine + bromine) < 900 ppm - Optimized mechanical properties - Resistance to skin oils, sunscreen or olive oil - Scratch resistance - Soft, velvety feel				- 耐磨性 - 包胶 ABS、ASA、PA、PC、PC/ABS、SAN - 包胶 PA6 和 PA12 - 卤素含量 (氯+溴) < 900 ppm - 优异的机械性能 - 耐皮肤油脂、防晒霜或橄榄油 - 耐刮擦 - 天鹅绒般柔软触感			
Regulations / Approvals				法规 / 批准			

THERMOLAST® R | 凯柏胶宝®R

Series 系列

RC/AD/PA

The RC/AD/PA series is your material solution with a PCR/PIR content of > 43% for a variety of applications with adhesion to PA. The compounds are available in natural colors and can be colored in many different ways.

RC/AD/PA 含有超过 43% 的消费后回收成分，适用于各种可与 PA 包胶的应用，是绝佳的材料解决方案。这些化合物提供本色，并可以以许多不同的方式进行着色。

Processing Method : Injection Molding | 加工方法 :注塑成型

Compound Name	化合物名称	Hardness	硬度	Color	颜色	Adhesion	包胶		
RRxNGD-NTRL		40 – 90 Shore A		Natural		本色		PA6, PA6.6	
Typical Applications				典型应用					
▪ Fasteners ▪ Function and design elements ▪ Grip applications ▪ Over molded housing ▪ Soft touch				▪ 紧固件 ▪ 功能和设计应用 ▪ 把手应用 ▪ 包覆成型机壳 ▪ 柔软触感					
Material Advantages				材料属性					
▪ Adhesion to PA6 and PA6.6 ▪ Colorable ▪ In-process recycling possible ▪ Recycled raw material content ▪ Recycling-specific raw material influences are possible ▪ Reduced PCF compared to virgin compound ▪ Sustainable material				▪ 包胶PA6 和 PA6.6 ▪ 可着色 ▪ 可在制造过程中回收利用 ▪ 回收原材料含量 ▪ 回收专用的原材料会对化合物带来影响 ▪ 与原始材料相比，降低了生产碳足迹 ▪ 可持续利用的材料					

THERMOLAST® R | 凯柏胶宝®R

Series 系列

RC/AD1/AP

The RC/AD1/AP series is your material solution with a hardness-dependent post-industrial recycled content of 34 - 50% for applications with adhesion to ABS, PC and PC/ABS for the Asian Pacific market. The compounds are suitable for consumer electronic applications and are available in black and natural colors. Pre-coloration is possible.

RC/AD1/AP 含有 34-50%（取决于硬度）的工业后回收成分，可与 ABS、PC 和 PC/ABS 包胶，是亚太市场应用的材料解决方案。这些化合物适用于消费电子应用，并有黑色和本色可供选择。还可进行预着色。

Processing Method : Injection Molding | 加工方法 :注塑成型

Compound Name	化合物名称	Hardness	硬度	Color	颜色	Adhesion	包胶
RlxPGM-BLCK		60 – 80 Shore A		Black	黑色		
RlxPGM-NTRL		60 – 80 Shore A		Natural	本色		ABS, PC, PC/ABS
Typical Applications				典型应用			
▪ Earphones ▪ Function and design elements ▪ Games consoles ▪ Handles (tools, toolboxes, ski poles) ▪ Handles and grips for consumer applications ▪ Household articles ▪ Remote controls ▪ Soft touch surface (thumb wheels, push buttons, switches) ▪ Wearables				▪ 耳机 ▪ 功能和设计应用 ▪ 游戏主机 ▪ 手柄 (工具、工具箱、滑雪杖) ▪ 消费品应用的手柄和把手 ▪ 家居用品 ▪ 遥控器 ▪ 柔软的表面触感 (拨轮、按键、开关) ▪ 可穿戴设备			
Material Advantages				材料属性			
▪ Adhesion to ABS, PC, PC/ABS ▪ Colorable ▪ Non-sticky surface ▪ Optimized mechanical properties ▪ Smooth touch ▪ Sustainable material				▪ 包胶 ABS、PC、PC/ABS ▪ 可着色 ▪ 不粘表面 ▪ 优异的机械性能 ▪ 光滑触感 ▪ 可持续利用的材料			

THERMOLAST® R | 凯柏胶宝®R

Series 系列	The RC/FC/PCR/AP series is your material solution with a post-consumer recycled content of 9-38% (hardness-dependent) for a variety of applications with adhesion to PP or for single component parts in Asia Pacific. The compounds are available in natural colors and precoloration is possible.
RC/FC/PCR/AP	RC/FC/PCR/AP 系列含 9% - 38%（根据硬度而定）消费后回收成分，适合亚太市场日常消费品应用，是您理想的材料解决方案。该化合物包胶PP，有本色可选，并且可以进行预着色，同时还符合食品安全要求。

Processing Method : Injection Molding | 加工方法 :注塑成型

Compound Name 化合物名称	Hardness 硬度	Color 颜色	Adhesion 包胶
RFxOGM-LCNT RFxOGM-NTRL	30 – 90 Shore A 30 – 90 Shore A	Translucent 半透明 Natural 本色	PP
Typical Applications	典型应用		
- Function and design elements - Grip applications - Handles and grips for consumer applications - Household articles - Razors - Seals for housings - Toothbrushes - Toys	- 功能和设计应用 - 把手应用 - 消费品应用的手柄和把手 - 家居用品 - 剃须刀 - 机壳密封件 - 牙刷 - 玩具		
Material Advantages	材料属性		
- Adhesion to PP - Alternative material to EPDM and PVC-P - Colorable - Non-sticky surface - Optimized mechanical properties - Precoloration in all colors - Recycled raw material content - Soft, non-sticky haptic - Sustainable material - Temperature stability up to 80 °C - Thermoplastic alternative to elastomers	- 包胶 PP - EPDM 和 PVC-P 的替代材料 - 可着色 - 优异的机械性能 - 可进行所有颜色的预着色 - 回收原材料含量 - 柔软不粘的触感 - 可持续利用的材料 80 °C 下的温度稳定性 - 弹性体的热塑性替代品 - 不粘表面		
Regulations / Approvals	法规 / 批准		
- GRS certified compound - US FDA CFR 21 (raw material conformity)	- GRS认证的化合物 - 美国 FDA CFR 21 (原料符合性)		

THERMOLAST® R | 凯柏胶宝®R

Series 系列	The RC/PCR/AP series is your material solution with a post-consumer recycled content of 25 - 48% (hardness-dependent) for a variety of applications with adhesion to PP or for single component parts for Asia Pacific Market. The compounds are available in black colors.
RC/PCR/AP	RC/PCR/AP 系列含 25%-48%（根据硬度而定）消费后回收成分，适合亚太地区工业应用，是您理想的材料解决方案，并提供黑色可选。

Processing Method : Injection Molding | 加工方法 :注塑成型

Compound Name 化合物名称	Hardness 硬度	Color 颜色	Adhesion 包胶
RCxOGM-BLCK	50 – 90 Shore A	Black 黑色	PP
Typical Applications	典型应用		
- Cable clips - Connectors - Electric and electronic components - Function and design elements - Grip applications - Grommets - Handles (hand tools and power tools etc.)	- 电缆固定夹 - 连接器 - 电气电子部件 - 功能和设计应用 - 把手应用 - 垫圈 - 手柄 (手动工具和电动工具等)		
Material Advantages	材料属性		
- Adhesion to PP - Alternative material to EPDM and PVC-P - Non-sticky surface - Optimized mechanical properties - Recycled raw material content - Sustainable material - Temperature stability up to 80 °C - Thermoplastic alternative to elastomers	- 包胶PP - EPDM 和 PVC-P 的替代材料 - 不粘表面 - 优异的机械性能 - 回收原材料含量 - 可持续利用的材料 80 °C 下的温度稳定性 - 弹性体的热塑性替代品		
Regulations / Approvals	法规 / 批准		
GRS certified compound	GRS 认证的化合物		

THERMOLAST® DW | 热塑宝 DW

Series 系列	The DW/CS2 series is your material solution in contact with drinking water for gasket, shower head jet former, fitting, membrane and design applications. The compounds meet the requirements of the most important European drinking water standards and are certified for P1 and P2 applications acc. to KTW-BWGL for cold, warm and hot water. They are translucent and are available in many different colors on request.
DW/CS2	DW/CS2 系列适用于各种与饮用水接触的密封垫、淋浴头射流器、配件、膜和设计应用，是绝佳的材料解决方案。这些化合物符合欧洲饮用水标准要求，并获得了针对冷、温和热水的 P1 和 P2 应用的 KTW-BWGL 认证。该化合物呈半透明色，并可根据要求提供多种不同的颜色。

Processing Method : Injection Molding | 加工方法 :注塑成型

Compound Name 化合物名称	Hardness 硬度	Color 颜色	Adhesion 包胶
DWx0CX-LCNT	50 – 85 Shore A 35 Shore D	Translucent 半透明 Translucent 半透明	PE, PP
Typical Applications	典型应用		
- Components for irrigation systems - Filter applications - Flexible Connections - Gaskets - Jet former - Membranes - Seals, functional and design elements in sanitary sector - Soft touch - Valve parts	- 灌溉系统零件喷射成型机 - 过滤器应用 - 柔性连接器 - 密封件 - 喷射成型机 - 薄膜 - 密封件，卫生行业的功能和设计要素 - 柔软触感 - 阀门零件		
Material Advantages	材料属性		
- Adhesion to PE, PP - Colorable - Demolding - Elasticity - Low density - Low migration potential - Optimized compression set at high temperatures - Optimized flow properties - Optimized mechanical properties - Resistance to microbes - Temperature stability up to 85 °C	- 包胶 PE, PP - 可着色 - 脱模 - 弹性 - 低密度 - 低迁移潜力 - 在高温下具有良好的压缩永久变形性能 - 优异的流动性 - 优异的机械性能 - 抗微生物 85 °C 下的温度稳定性		
Regulations / Approvals	法规 / 批准		
- KTW-BWGL P2/P3 certification - KTW-BWGL P1 partly certification - KTW-BWGL for hot water (85 °C) - KTW-BWGL for cold water (23 °C) - Regulation (EU) No 10/2011 - WRAS (BS6920)	- KTW-BWGL P2/P3 认证 - KTW-BWGL P1 部分认证 - 热水 (85 °C) KTW-BWGL - 冷水 (23 °C) KTW-BWGL - 欧盟法规 (EU) No 10/2011 - WRAS (BS6920)		

THERMOLAST® DW | 热塑宝 DW

Series 系列	The DW/H2 series is your material solution for hoses in contact with drinking water in sanitary and household applications. The compounds meet the requirements of the most important European drinking water standards such as KTW-BWGL. They are translucent and are available in many different colors on request.
DW/H2	DW/H2 系列适用于各种与饮用水接触的卫生和家庭应用，是绝佳的材料解决方案。这些化合物符合欧洲饮用水标准要求，如 KTW-BWGL。该化合物是半透明色的，并可根据要求提供多种不同的颜色。

Processing Method : Extrusion, Injection Molding | 加工方法 : 挤塑, 注塑成型

Compound Name	化合物名称	Hardness 硬度	Color 颜色	Adhesion 包胶
DWxHTU-LCNT DWxHTV-LCNT		75 – 85 Shore A 70 – 90 Shore A 40 Shore D	Translucent 半透明 Translucent 半透明 Translucent 半透明	PP
Typical Applications	典型应用			
- Hoses - Hoses for food application - Hoses for household appliances - Pressurized tubes - Shower hoses	- 软管 - 食品应用软管 - 家用电器软管 - 加尿管 - 淋浴软管			
Material Advantages	材料属性			
- Adhesion to PP - Alternative material to PVC - Colorable - High elasticity - Low density - Low kinking tendency - Low migration potential - Low surface friction - Non-sticky surface - Optimized mechanical properties - Resistance to microbes	- 包胶 PP - PVC 的替代材料 - 可着色 - 高弹性 - 低密度 - 低扭结倾向 - 低迁移潜力 - 低表面摩擦力 - 不粘表面 - 优异的机械性能 - 抗微生物			
Regulations / Approvals	法规 / 批准			
- ACS (DGS/VS4 n° 200/232) - Regulation (EU) No 10/2011 - WRAS (BS6920)	- ACS (DGS/VS4 n° 200/232) - 欧盟法规 (EU) No 10/2011 - WRAS (BS6920)			

COPEC® | 科柔宝®

Series 系列	The VS/AD1 series is your material solution for consumer electronics applications. It is characterized by a silky and velvety surface. The compounds convince by their adhesion to polar thermoplastics such as ABS, PC or PC/ABS. They are available in black and natural. Naturally colored variants can be coloured in many different ways.
VS/AD1	VS/AD1 系列材料解决方案适用于消费电子应用。这类化合物具有鹅绒般的丝滑触感，并对 ABS、PC 或 PC/ABS 等极性热塑性材料拥有包胶性能的特点。有黑色和本色可供选择。本色产品系列可用多种不同方式着色。

Processing Method : Extrusion, Injection Molding | 加工方法 : 挤塑, 注塑成型

Compound Name	化合物名称	Hardness 硬度	Color 颜色	Adhesion 包胶
CCxOCN CCxOCZ		60 – 80 Shore A 60 – 80 Shore A	Natural Black 本色 黑色	ABS, ASA, PA, PC/ABS, SAN
Typical Applications	典型应用			
- Attenuators for electronic housings - Cell phone covers - Earphones - Games consoles - Handles and grips for consumer applications - Handles (tools and power tools, etc.) - Remote controls - Seals - Wearables	- 电器外壳消声器 - 手机套 - 耳机 - 游戏主机 - 消费品应用的手柄和把手 - 手柄 (手动工具和电动工具等) - 遥控器 - 密封件 - 可穿戴设备			
Material Advantages	材料属性			
- Adhesion to PC, ABS, PC/ABS, ASA, SAN - Color consistency - Colorable - Insert molding possible - Resistance to skin oils, sunscreen or olive oil - Soft touch surface - Soft, velvety feel	- 包胶 ABS、ASA、PC、PC/ABS、SAN - 色彩一致性 - 可着色 - 可嵌入成型 - 耐皮肤油脂、防晒霜或橄榄油 - 柔软的表面触感 - 天鹅绒般柔软触感			
Regulations / Approvals	法规 / 批准			
49 CFR §571.302 (FMVSS 302) - BMW GS 93042 - DIN 75201-B – Fogging - DIN EN ISO 105-B06 Method 3 - Mercedes-Benz DBL 5562 - Stellantis B62 0300 - UL 94 HB - VDA 270 B3 - Odor - VW 50123	49 CFR §571.302 (FMVSS 302) - 宝马 GS 93042 - DIN 75201-B – 雾化值 - DIN EN ISO 105-B06 Method 3 - 奔驰 DBL 5562 - Stellantis B62 0300 - UL 94 HB - VDA 270 B3 – 气味 - VW 50123			



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