



**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和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



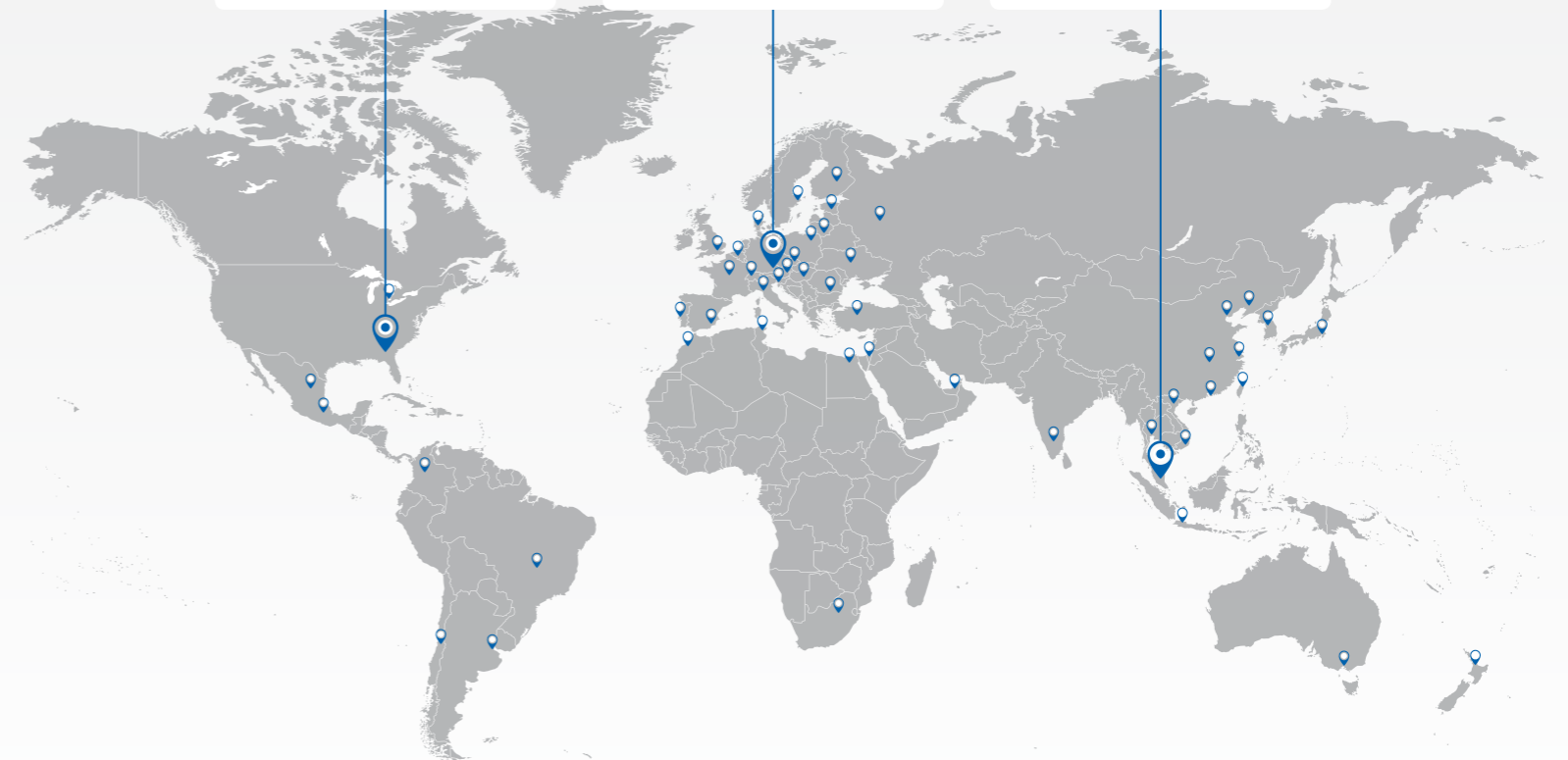
Headquarters  
总部

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<sup>3</sup>, 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<sup>3</sup>，可真正减轻各应用组件和最终产品的重量。

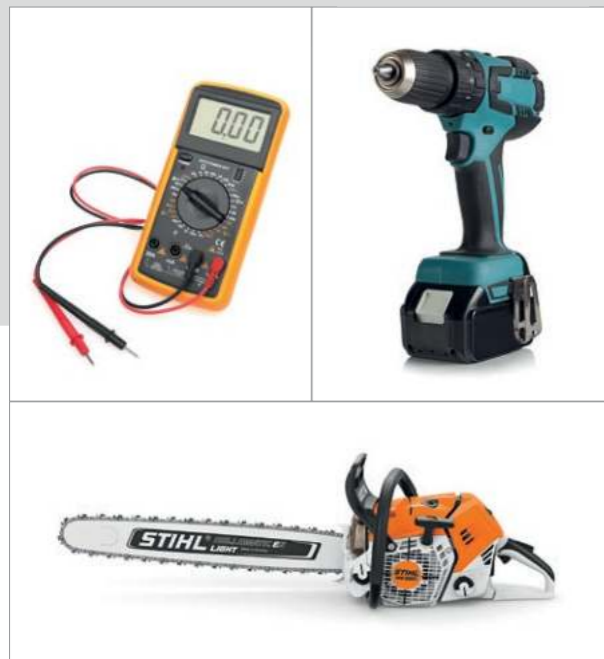


# APPLICATION AREAS

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



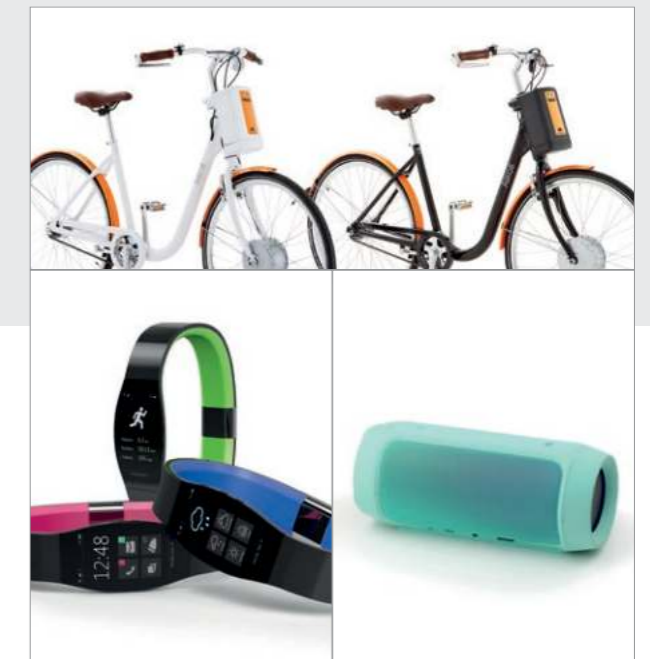
### DRINKING WATER & SANITARY 饮用水和卫生用品

- 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 电子消费品

- 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

- Dryer
- Refrigerators
- Stoves
- 烘干机
- 冰箱
- 炉灶



### BUILDING & CONSTRUCTION 建筑施工

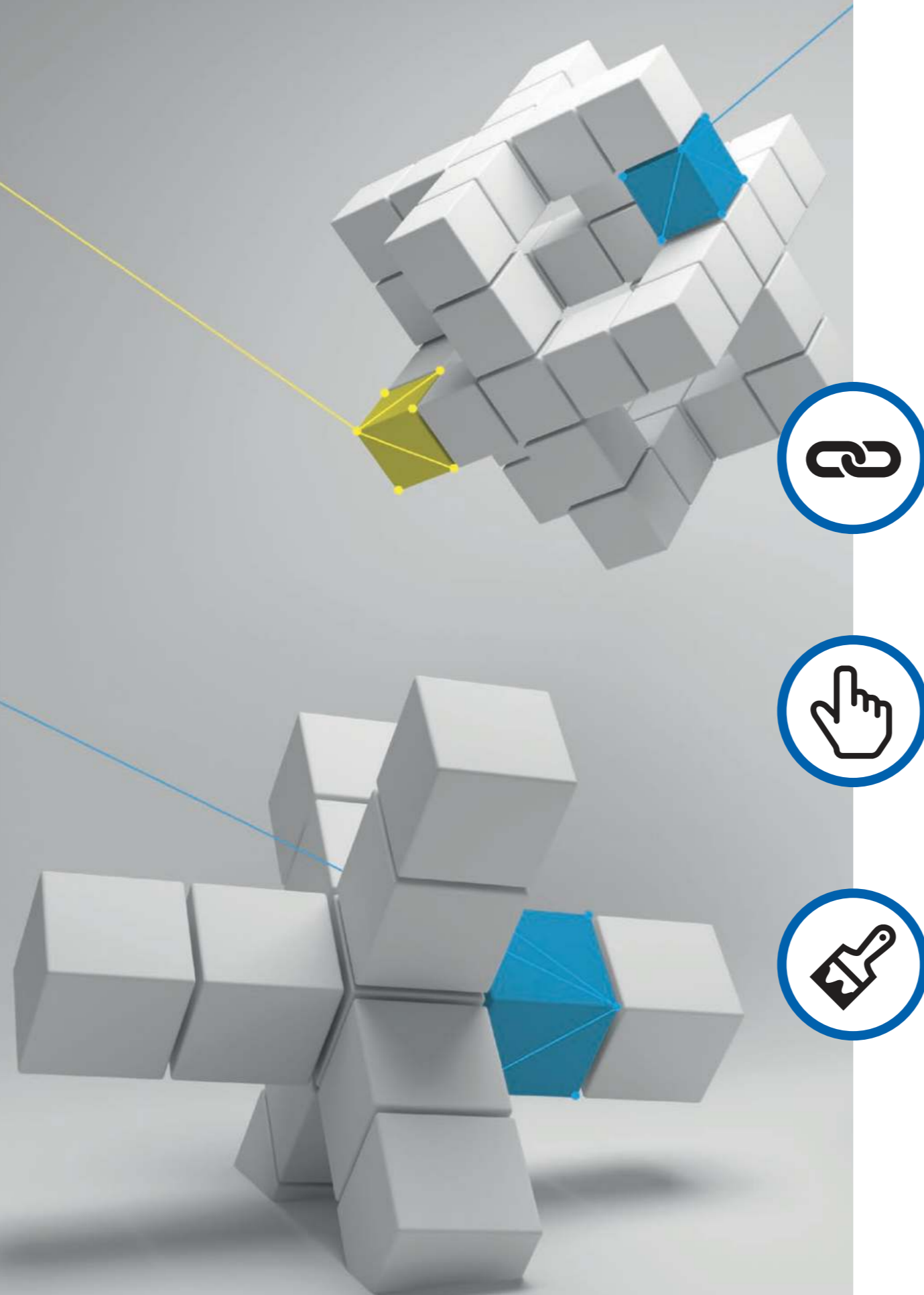
- Air conditioning and heating installation
- Joint tapes
- Window and door seals
- 空调和暖气安装
- 连接胶带
- 门窗密封条

# 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中。

### 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。

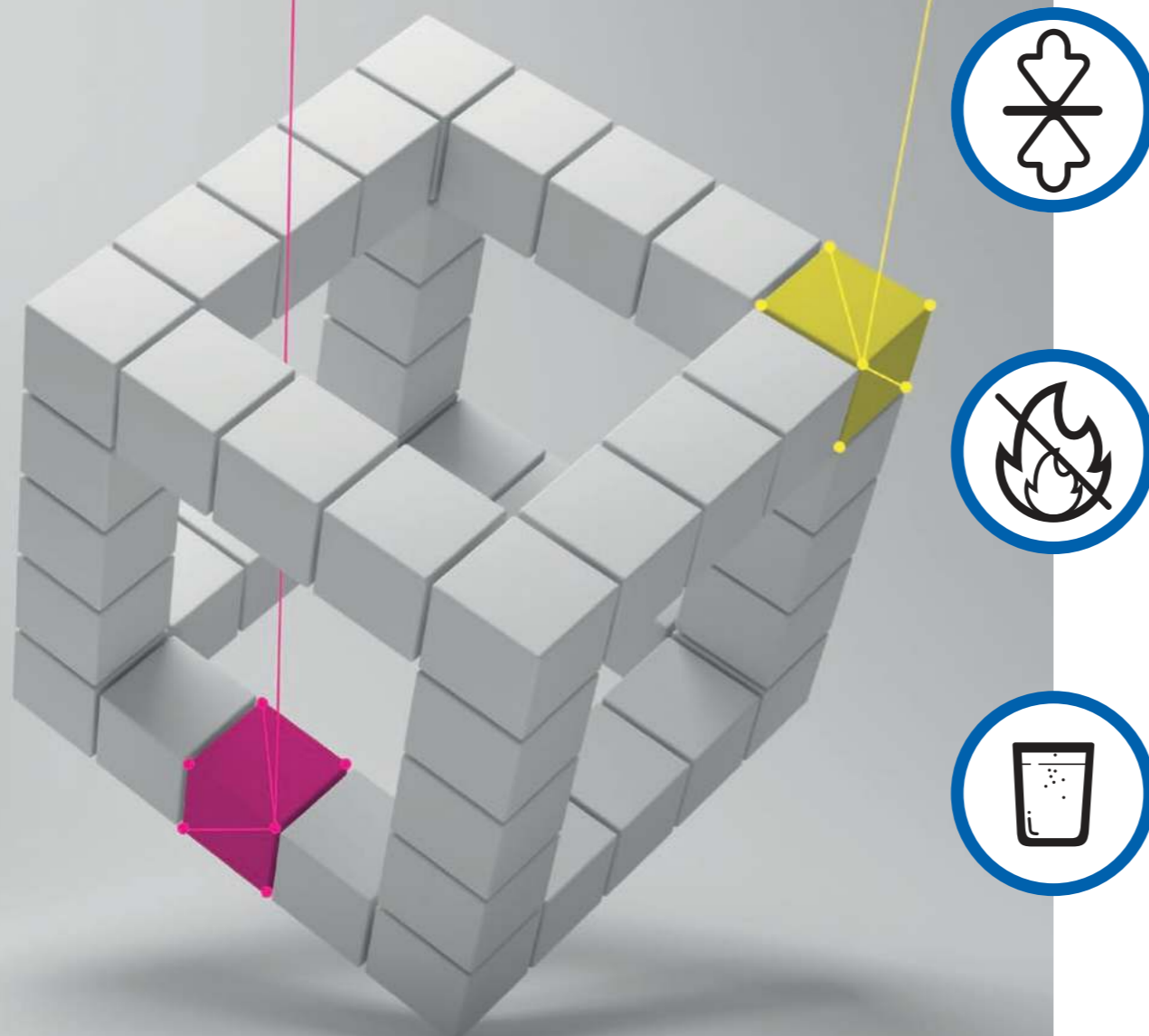


# MATERIAL PROPERTIES

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特性，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。

已获得 DVGW、W270、KTW、WRAS、ACS 批准。

Approvals in accordance with DVGW, W270, KTW, WRAS, ACS.



# 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

Sustainability is not just a buzzword at KRAIBURG TPE, it is a principle we live by. With us you are choosing a partner who takes on responsibility for the environment and society. Today and tomorrow. For example, we do not use palm oil in the materials we produce.

### **Our compounds are PVC-free, halogen-free and recyclable.**

- Certified worldwide in accordance with ISO 14001 and ISO 9001
- Headquarters in Germany certified in accordance with ISO 50001
- EH&S management, reporting & auditing
- Systematic energy management
- Annually renewed environmental protection and occupational safety program
- Selection of raw materials suppliers based on quality and environmental impact

在凯柏胶宝®，可持续发展不仅仅是一个时下流行的概念，更是我们身体力行的原则。选择我们，您将会拥有一位对环境、对社会有责任有担当的合作伙伴，不止当下，还有未来。例如，我们生产的材料中不会使用棕榈油。

### **我们的化合物中不含PVC、卤素，并且可以回收利用。**

- 全球所有生产基地皆符合 ISO 14001 和 ISO 9001 认证标准
- 德国总部符合 ISO 50001 认证标准
- EH&S 管理、报告和审计
- 系统的能源管理
- 每年更新环境保护和职业安全计划
- 根据质量和环境影响选择原材料供应商





# 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
AD1	ABS, PC, PC/ABS
AD1/CS	ABS, PC, PC/ABS
AD/PA	PA
AD/PA/CS	PA
AD/PA/CS2	PA
AD/POM	POM
DW	PP
DW/CS	PP
DW/H	PP
FR2	PP
FR/AP	PP
GP/AP	PP
GP/FG	PP
LW/CS/UV	PP
LW/PA	PA
LW/UV	PP
SCR	PP
UV/AD2	ABS, ASA, PC, PC/ABS, PMMA
UV/AP	PP
UV/LD/b	PP
VS/AD/HM	ABS, ASA, PA, PC, PC/ABS, SAN

热塑宝 A THERMOLAST® A	包胶材料 Adhesion Materials
UV/AD1	ABS, PC, PC/ABS

热塑宝 V THERMOLAST® V	包胶材料 Adhesion Materials
LTP	PP
LTP/PA	PA

尼塑宝® For Tec E®	包胶材料 Adhesion Materials
AD/PAX/CR	PA

### 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	自然色	ABS, PC, PC/ABS	
TCxMLZ		50 – 80 Shore A		Black	黑色		
TCxMSB		30 – 40 Shore A		Natural	自然色		
TCxMSZ		30 – 40 Shore A		Black	黑色		

Typical Applications	典型应用
<ul style="list-style-type: none"> <li>Door sills</li> <li>Function and design elements</li> <li>Grommets</li> <li>Handles (hand tools and power tools etc.)</li> <li>Seals</li> <li>Soft touch surface (thumb wheels, push buttons, switches)</li> <li>Thumb wheels</li> </ul>	<ul style="list-style-type: none"> <li>门槛</li> <li>功能和设计要素</li> <li>垫圈</li> <li>手柄（手动工具和电动工具等）</li> <li>密封件</li> <li>软质表面（拨轮、按键、开关）</li> <li>拨轮</li> </ul>

Material Advantages	材料属性
<ul style="list-style-type: none"> <li>Adhesion to PC, ABS, PC/ABS, ASA, SAN</li> <li>Colorable</li> <li>Controlled level of emission and odor</li> <li>Insert molding possible</li> <li>Soft touch surface</li> <li>Soft, non-sticky haptic</li> </ul>	<ul style="list-style-type: none"> <li>包胶 PC、ABS、PC/ABS、ASA、SAN</li> <li>可染色</li> <li>可控的排放和气味水平</li> <li>可嵌入成型</li> <li>柔软的表面触感</li> <li>柔软不粘的触感</li> </ul>

Regulations / Approvals	法规 / 批准
<ul style="list-style-type: none"> <li>DIN 75201-B - Fogging</li> <li>DIN EN ISO 105-B06 Method 3</li> <li>UL 94 HB</li> <li>VDA 270 B3 - Odor</li> </ul>	<ul style="list-style-type: none"> <li>DIN 75201-B - 雾化值</li> <li>DIN EN ISO 105-B06 Method 3</li> <li>UL 94 HB</li> <li>VDA 270 B3 - 气味</li> </ul>

### 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, and PC/ABS. 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形变特性和包胶极性热塑性材料（如 ABS、PC 和 PC/ABS）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 – 75 Shore A		Natural	自然色	ABS, PC, PC/ABS	
TPxVCZ		50 – 80 Shore A		Black	黑色		

Typical Applications	典型应用
<ul style="list-style-type: none"> <li>Attenuators for electronic housings</li> <li>Cable holders</li> <li>Connectors</li> <li>Electric and electronic components</li> <li>Flexible Connections</li> <li>Function and design elements</li> <li>Grommets</li> <li>Seals for housings</li> <li>Seals, functional and design elements in sanitary sector</li> <li>Soft touch surface (thumb wheels, push buttons, switches)</li> </ul>	<ul style="list-style-type: none"> <li>电器外壳消声器</li> <li>电缆支架</li> <li>连接器</li> <li>电气电子部件</li> <li>柔性连接器</li> <li>功能和设计要素</li> <li>垫圈</li> <li>机壳密封件</li> <li>密封件, 卫生行业的功能和设计要素</li> <li>软质表面（拨轮、按键、开关）</li> </ul>

Material Advantages	材料属性
<ul style="list-style-type: none"> <li>Adhesion to PBT</li> <li>Adhesion to PC, ABS, PC/ABS, ASA, SAN</li> <li>Optimized compression set</li> <li>Optimized mechanical properties</li> <li>Resilience</li> </ul>	<ul style="list-style-type: none"> <li>包胶 PBT</li> <li>包胶 PC、ABS、PC/ABS、ASA、SAN</li> <li>出色的压缩形变特性</li> <li>优异的机械特性</li> <li>韧性</li> </ul>

Regulations / Approvals	法规 / 批准
<ul style="list-style-type: none"> <li>UL 94 HB</li> </ul>	<ul style="list-style-type: none"> <li>UL 94 HB</li> </ul>

## 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 TCxPAZ		20 – 80 Shore A 20 – 80 Shore A	Natural 自然色 Black 黑色	PA
Typical Applications	典型应用			
<ul style="list-style-type: none"><li>Attenuators for electronic housings</li><li>Cable clips</li><li>Function and design elements</li><li>Grommets</li><li>Handles (hand tools and power tools etc.)</li><li>Seals</li><li>Thumb wheels</li></ul>	<ul style="list-style-type: none"><li>电器外壳消声器</li><li>缆线卡钩</li><li>功能和设计要素</li><li>垫圈</li><li>手柄（手动工具和电动工具等）</li><li>密封件</li><li>拨轮</li></ul>			
Material Advantages	材料属性			
<ul style="list-style-type: none"><li>Adhesion to PA6 and PA6.6, up to 50% glass fiber</li><li>Adhesion to PA12</li><li>Colorable</li><li>Demolding</li><li>Dry haptics</li><li>Halogen content (chlorine + bromine) &lt; 900 ppm</li><li>Optimized flow properties</li><li>Soft touch surface</li></ul>	<ul style="list-style-type: none"><li>包胶 PA6 和 PA6.6，玻璃纤维高达 50%</li><li>包胶 PA12</li><li>可染色</li><li>脱模</li><li>干爽触感</li><li>卤素含量（氯+溴）&lt; 900 ppm</li><li>优异的流动性</li><li>柔软的表面触感</li></ul>			
Regulations / Approvals	法规 / 批准			
<ul style="list-style-type: none"><li>DIN 75201-B – Fogging</li><li>DIN EN ISO 105-B06 Method 3</li><li>UL 94 HB</li></ul>	<ul style="list-style-type: none"><li>DIN 75201-B - 雾化值</li><li>DIN EN ISO 105-B06 Method 3</li><li>UL 94 HB</li></ul>			

## THERMOLAST® K | 热塑宝 K

Series 系列	The AD/PA/CS series is your material solution for applications with 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包胶 PA 和密封功能应用。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
TCxPCN TCxPCZ		40 – 80 Shore A 35 – 75 Shore A	Natural 自然色 Black 黑色	PA
Typical Applications	典型应用			
<ul style="list-style-type: none"><li>Attenuators for electronic housings</li><li>Cable holders</li><li>Connectors</li><li>Fastenings</li><li>Grommets</li><li>Handles (Powertool)</li><li>Membranes</li><li>Seals</li><li>Seals for plugs</li></ul>	<ul style="list-style-type: none"><li>电器外壳消声器</li><li>电缆支架</li><li>连接器</li><li>紧固件</li><li>垫圈</li><li>手柄（电动工具）</li><li>薄膜</li><li>密封件</li><li>插头密封件</li></ul>			
Material Advantages	材料属性			
<ul style="list-style-type: none"><li>Adhesion to PA6 and PA6.6, up to 50% glass fiber</li><li>Long-term sealing function</li><li>Optimized compression set</li><li>Optimized flow properties</li><li>Optimized mechanical properties</li></ul>	<ul style="list-style-type: none"><li>包胶 PA6 和 PA6.6，玻璃纤维高达 50%</li><li>长期密封功能</li><li>出色的压缩形变特性</li><li>优异的流动性</li><li>优异的机械特性</li></ul>			
Regulations / Approvals	法规 / 批准			
<ul style="list-style-type: none"><li>UL 94 HB</li></ul>	<ul style="list-style-type: none"><li>UL 94 HB</li></ul>			

## THERMOLAST® K | 热塑宝 K

Series 系列	The AD/PA/CS2 Series is your material solution for applications with excellent adhesion to PA as well as outstanding compression set. The compounds are available in natural and black colors.
AD/PA/CS2	AD/PA/CS2 系列用于需要卓越包胶性能应用的材料解决方案，能包胶PA，同时具有出色的压缩形变。该化合物拥有自然色和黑色可供选择。

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
TCxPRN TCxPRZ		40 – 80 Shore A 40 – 80 Shore A	Natural 自然色 Black 黑色	PA
Typical Applications	典型应用			
<ul style="list-style-type: none"><li>Cable clips</li><li>Fastenings</li><li>Flexible Connections</li><li>Grommets</li><li>Handles (Powertool)</li><li>Membranes</li><li>Seals</li></ul>	<ul style="list-style-type: none"><li>缆线卡钩</li><li>紧固件</li><li>柔性连接器</li><li>垫圈</li><li>手柄（电动工具）</li><li>薄膜</li><li>密封件</li></ul>			
Material Advantages	材料属性			
<ul style="list-style-type: none"><li>Adhesion to PA6 and PA6.6, up to 50% glass fiber</li><li>Colorable</li><li>Insert molding possible</li><li>Optimized compression set</li></ul>	<ul style="list-style-type: none"><li>包胶 PA6 和 PA6.6，玻璃纤维高达 50%</li><li>可染色</li><li>可嵌入成型</li><li>出色的压缩形变特性</li></ul>			
Regulations / Approvals	法规 / 批准			
<ul style="list-style-type: none"><li>PV 3930 Florida (2 years) – Weathering Test</li><li>UL 94 HB</li></ul>	<ul style="list-style-type: none"><li>PV 3930 佛罗里达试验（2年）- 耐候性测试</li><li>UL 94 HB</li></ul>			

## THERMOLAST® K | 热塑宝 K

Series 系列	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	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 TCxHAZ TCxHBA TCxHBZ		50 – 80 Shore A 50 – 80 Shore A 60 – 70 Shore A 60 – 70 Shore A	Natural 自然色 Black 黑色 Natural 自然色 Black 黑色	POM
Typical Applications	典型应用			
<ul style="list-style-type: none"><li>Cable holders</li><li>Fastenings</li><li>Function and design elements</li><li>Grommets</li><li>Handles (hand tools and power tools etc.)</li><li>Seals</li><li>Thumb wheels</li></ul>	<ul style="list-style-type: none"><li>电缆支架</li><li>紧固件</li><li>功能和设计要素</li><li>垫圈</li><li>手柄（手动工具和电动工具等）</li><li>密封件</li><li>拨轮</li></ul>			
Material Advantages	材料属性			
<ul style="list-style-type: none"><li>Adhesion to POM</li><li>Colorable</li><li>Demolding</li><li>Soft touch surface</li></ul>	<ul style="list-style-type: none"><li>包胶POM</li><li>可染色</li><li>脱模</li><li>柔软的表面触感</li></ul>			
Regulations / Approvals	法规 / 批准			
<ul style="list-style-type: none"><li>DIN 75201-B – Fogging</li><li>DIN EN ISO 105-B06 Method 3</li><li>VDA 270 B3 – Odor</li></ul>	<ul style="list-style-type: none"><li>DIN 75201-B - 雾化值</li><li>DIN EN ISO 105-B06 Method 3</li><li>VDA 270 B3 - 气味</li></ul>			



## THERMOLAST® K | 热塑宝 K

Series 系列	The DW Series is your material solution for applications in contact with drinking water. The compounds are approved in accordance with all relevant European drinking water standards – DVGW, W270, KTW, ACS. They are available in natural colors and can be colored in many different ways.
DW	DW 系列材料解决方案适用于接触饮用水和包胶 PP 应用。这类化合物符合欧洲主要的几大饮用水标准——DVGW、W270、KTW、WRAS、ACS。产品为本色，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
TFxWKF	50 – 90 Shore A	Natural 自然色	PP
Typical Applications		典型应用	
<ul style="list-style-type: none"><li>Grip applications</li><li>Jet former</li><li>Seals, functional and design elements in sanitary sector</li><li>Soft touch</li></ul>		<ul style="list-style-type: none"><li>把手应用</li><li>喷射成型机</li><li>密封件，卫生行业的功能和设计要素</li><li>软触感</li></ul>	
Material Advantages		材料属性	
<ul style="list-style-type: none"><li>Adhesion to PP</li><li>Optimized mechanical properties</li><li>Plasticizer free</li><li>Precoloration in all colors</li><li>Resistance to microbes</li><li>Surface with low sensitivity to dirt</li><li>Thermoplastic alternative to elastomers</li></ul>		<ul style="list-style-type: none"><li>包胶 PP</li><li>优异的机械特性</li><li>不含增塑剂</li><li>可进行所有颜色的预着色</li><li>抗微生物</li><li>表面耐污垢</li><li>弹性体的热塑性替代品</li></ul>	
Regulations / Approvals		法规 / 批准	
<ul style="list-style-type: none"><li>ACS (DGS/VS4 n° 200/232)</li><li>DVGW Arbeitsblatt W270</li><li>KTW</li></ul>		<ul style="list-style-type: none"><li>ACS (DGS/VS4 n° 200/232)</li><li>德国 DVGW worksheet W 270</li><li>德国 KTW 认证</li></ul>	

## THERMOLAST® K | 热塑宝 K

Series 系列	The DW/CS series is your material solution for applications in contact with drinking water and sealing function, also with adhesion to PP. The compounds are approved according to important European drinking water standards - DVGW, W270, KTW, WRAS, ACS. The compounds are available in natural colors and can be colored in many different ways.
DW/CS	DW/CS 系列材料解决方案适用于接触饮用水和包胶 PP 应用。这类化合物符合欧洲主要的几大饮用水标准——DVGW、W270、KTW、WRAS、ACS。这类化合物为本色，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
TFxWSC	60 – 90 Shore A	Natural 自然色	PP
Typical Applications		典型应用	
<ul style="list-style-type: none"><li>Seals, functional and design elements in sanitary sector</li></ul>		<ul style="list-style-type: none"><li>密封件，卫生行业的功能和设计要素</li></ul>	
Material Advantages		材料属性	
<ul style="list-style-type: none"><li>Adhesion to PP</li><li>Optimized compression set</li><li>Plasticizer free</li><li>Precoloration in all colors</li><li>Resistance to microbes</li><li>Surface with low sensitivity to dirt</li><li>Thermoplastic alternative to elastomers</li></ul>		<ul style="list-style-type: none"><li>包胶 PP</li><li>出色的压缩形变特性</li><li>不含增塑剂</li><li>可进行所有颜色的预着色</li><li>抗微生物</li><li>表面耐污垢</li><li>弹性体的热塑性替代品</li></ul>	
Regulations / Approvals		法规 / 批准	
<ul style="list-style-type: none"><li>ACS (DGS/VS4 n° 200/232)</li><li>DVGW Arbeitsblatt W270</li><li>KTW</li><li>WRAS (BS6920)</li></ul>		<ul style="list-style-type: none"><li>ACS (DGS/VS4 n° 200/232)</li><li>德国 DVGW worksheet W 270</li><li>德国 KTW 认证</li><li>WRAS (BS6920)</li></ul>	

## THERMOLAST® K | 热塑宝 K

Series 系列	The DW/H series is your material solution for hoses in contact with drinking water. The compounds are approved according to important European drinking water standards - DVGW, W270, KTW, WRAS, ACS. They are translucent and can be colored in many different ways.
DW/H	DW/H 系列材料解决方案适用于接触饮用水的软管。这类化合物符合欧洲主要的几大饮用水标准——DVGW、W270、KTW、WRAS、ACS。产品是半透明的，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
TFxWHA TFxWHB	55 – 85 Shore A 60 – 80 Shore A	Translucent 半透明 Translucent 半透明	pp
Typical Applications		典型应用	
<ul style="list-style-type: none"><li>Hoses for food application</li><li>Hoses for household appliances</li><li>Jet former</li><li>Shower hoses</li></ul>		<ul style="list-style-type: none"><li>食品应用软管</li><li>家用电器软管</li><li>喷射成型机</li><li>淋浴软管</li></ul>	
Material Advantages		材料属性	
<ul style="list-style-type: none"><li>Adhesion to PP</li><li>Alternative material to PVC-P</li><li>Low kinking tendency</li><li>Optimized mechanical properties</li><li>Plasticizer free</li><li>Precoloration in all colors</li><li>Resistance to microbes</li><li>Surface with low sensitivity to dirt</li></ul>		<ul style="list-style-type: none"><li>包胶 PP</li><li>PVC-P 的替代材料</li><li>低扭结倾向</li><li>优异的机械特性</li><li>不含增塑剂</li><li>可进行所有颜色的预着色</li><li>抗微生物</li><li>表面耐污垢</li></ul>	
Regulations / Approvals		法规 / 批准	
<ul style="list-style-type: none"><li>ACS (DGS/VS4 n° 200/232)</li><li>DVGW Arbeitsblatt W270</li><li>KTW</li><li>WRAS (BS6920)</li></ul>		<ul style="list-style-type: none"><li>ACS (DGS/VS4 n° 200/232)</li><li>DVGW worksheet W 270</li><li>德国 KTW 认证</li><li>WRAS (BS6920) 德国</li></ul>	

## THERMOLAST® K | 热塑宝 K

Series 系列	The FR2 series is your material solution for applications with flame retardant requirements for low wall thicknesses. The compounds are UL94 V-0 (1.5 mm) certified and halogen-free according to IEC 61249-2-21. They are available in black and natural colors. Natural color variants can be colored in many different ways.
FR2	FR2 系列材料解决方案适用于有阻燃需求的低壁厚应用。根据 IEC 61249-2-21 标准，这类化合物通过 UL94 V-0 (1.5mm) 认证，不含卤素。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
TCxFTN TCxFTZ	50 – 80 Shore A 50 – 80 Shore A	Natural 自然色 Black 黑色	pp
Typical Applications		典型应用	
<ul style="list-style-type: none"><li>Cable holders</li><li>Fastenings</li><li>Grommets</li><li>Profiles for furniture</li><li>Seals for in wall outlets</li><li>Seals for plugs</li><li>Seals for switch boxes</li><li>Seals for windows and doors</li></ul>		<ul style="list-style-type: none"><li>电缆支架</li><li>紧固件</li><li>垫圈</li><li>家具外形</li><li>入墙插座密封件</li><li>插头密封件</li><li>开关盒密封件</li><li>门窗密封件</li></ul>	
Material Advantages		材料属性	
<ul style="list-style-type: none"><li>Adhesion to PP</li><li>Fulfills flame retardant requirements railway applications</li><li>Halogen-free (according to IEC 61249-2-21)</li><li>In-process recycling possible</li><li>No interaction with copper</li><li>No silicones added</li><li>Precoloration in all colors</li><li>Self-extinguishing, no release of burning droplets</li></ul>		<ul style="list-style-type: none"><li>包胶 PP</li><li>符合铁路应用的阻燃要求</li><li>不含卤素（符合 IEC 61249-2-21 标准）</li><li>可在制造过程中回收利用</li><li>与铜无反应</li><li>未添加有机硅</li><li>可进行所有颜色的预着色</li><li>自熄性，不会产生燃烧液滴</li></ul>	
Regulations / Approvals		法规 / 批准	
<ul style="list-style-type: none"><li>DIN EN 45545-2 / R22/23 HL3</li><li>UL 94 V-0 (1.5 mm)</li></ul>		<ul style="list-style-type: none"><li>DIN EN 45545-2 / R22/23 HL3</li><li>UL 94 V-0 (1.5 mm)</li></ul>	

## THERMOLAST® K | 热塑宝 K

Series 系列	The FR/AP series is your material solution for applications with flame retardant requirements. The compounds are halogen-free according to IEC 61249-2-21 and available in black and natural colors. Natural-colored variants can be coloured in many different ways.
FR/AP	FR/AP 系列材料解决方案适用于有阻燃需求的应用。根据 IEC 61249-2-21 标准，这类化合物不含卤素，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
TCxFLN TCxFLZ		40 – 90 Shore A 40 – 90 Shore A	Natural 自然色 Black 黑色	PP
Typical Applications	典型应用			
<ul style="list-style-type: none"><li>Cable clips</li><li>Cable holders</li><li>Electric and electronic components</li><li>Seals for housings</li><li>Seals for inwall outlets</li><li>Seals for switch boxes</li></ul>	<ul style="list-style-type: none"><li>缆线卡钩</li><li>电缆支架</li><li>电气电子部件</li><li>机壳密封件</li><li>入墙插座密封件</li><li>开关盒密封件</li></ul>			
Material Advantages	材料属性			
<ul style="list-style-type: none"><li>Adhesion to PP</li><li>Colorable</li><li>Demolding</li><li>Halogen-free flame-retardant system</li><li>Optimized mechanical properties</li><li>Self-extinguishing, no release of burning droplets</li></ul>	<ul style="list-style-type: none"><li>包胶 PP</li><li>可染色</li><li>脱模</li><li>无卤阻燃系统</li><li>优异的机械特性</li><li>自熄性，不会产生燃烧液滴</li></ul>			
Regulations / Approvals	法规 / 批准			
<ul style="list-style-type: none"><li>UL 94 V-0 (3 mm)</li></ul>	<ul style="list-style-type: none"><li>UL 94 V-0 (3 mm)</li></ul>			

## THERMOLAST® K | 热塑宝 K

Series 系列	The GP/AP series is your material solution for technical applications with adhesion to PP. The compounds are available in black and natural colors. Natural colored variants can be colored in many different ways.
GP/AP	GP/AP 系列材料解决方案适用于包胶 PP 的技术应用。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
TCxTPN TCxTPZ		20 – 90 Shore A / 33 Shore D 20 – 90 Shore A / 33 Shore D	Natural 自然色 Black 黑色	PP
Typical Applications	典型应用			
<ul style="list-style-type: none"><li>Function and design elements</li><li>Handles (hand tools and power tools etc.)</li><li>Soft touch for grips, switches and mats</li></ul>	<ul style="list-style-type: none"><li>功能和设计要素</li><li>手柄（手动工具和电动工具等）</li><li>把手、开关和橡胶垫的柔软触感</li></ul>			
Material Advantages	材料属性			
<ul style="list-style-type: none"><li>Adhesion to PP</li><li>Colorable</li><li>Dry haptics</li><li>In-process recycling possible</li><li>Optimized flow properties</li><li>Optimized mechanical properties</li></ul>	<ul style="list-style-type: none"><li>包胶 PP</li><li>可染色</li><li>干爽触感</li><li>可在制造过程中回收利用</li><li>优异的流动性</li><li>优异的机械特性</li></ul>			

## THERMOLAST® K | 热塑宝 K

Series 系列	The GP/FG series is your material solution for a variety of applications. 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合多种不同应用。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 / 32 Shore D 20 – 90 Shore A / 33 Shore D	Natural 自然色 Black 黑色	PP
Typical Applications	典型应用			
<ul style="list-style-type: none"><li>Function and design elements</li><li>Handles (hand tools and power tools etc.)</li><li>Seals for housings</li><li>Soft touch surface (thumb wheels, push buttons, switches)</li></ul>	<ul style="list-style-type: none"><li>功能和设计要素</li><li>手柄（手动工具和电动工具等）</li><li>机壳密封件</li><li>软质表面（拨轮、按键、开关）</li></ul>			
Material Advantages	材料属性			
<ul style="list-style-type: none"><li>Adhesion to PP</li><li>Colorable</li><li>Controlled level of emission and odor</li><li>Dry haptics</li><li>Halogen-free (according to IEC 61249-2-21)</li><li>In-process recycling possible</li><li>Optimized mechanical properties</li><li>Soft touch surface</li></ul>	<ul style="list-style-type: none"><li>包胶 PP</li><li>可染色</li><li>可控的排放和气味水平</li><li>干爽触感</li><li>不含卤素（符合 IEC 61249-2-21 标准）</li><li>可在制造过程中回收利用</li><li>优异的机械特性</li><li>柔软的表面触感</li></ul>			
Regulations / Approvals	法规 / 批准			
<ul style="list-style-type: none"><li>DIN 75201-B - Fogging</li><li>DIN EN ISO 105-B06 Method 3</li><li>PV 3929 Kalahari (1 year) – Weathering Test</li><li>PV 3930 Florida (1 year) – Weathering Test</li><li>UL 94 HB</li><li>VDA 270 B3 - Odor</li></ul>	<ul style="list-style-type: none"><li>DIN 75201-B - 雾化值</li><li>DIN EN ISO 105-B06 Method 3</li><li>PV 3929 卡拉哈里试验（1年）-耐候性测试</li><li>PV 3930 佛罗里达试验（1年）-耐候性测试</li><li>UL 94 HB</li><li>VDA 270 B3 - 气味</li></ul>			

## THERMOLAST® K | 热塑宝 K

Series 系列	The LW/CS/UV Series is your lightweight material solution for applications with superior requirements on sealing performance. They are available in black colors.
LW/CS/UV	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。该系列的颜色为黑色。

**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
TLxOCW-BLCK		55 – 65 Shore A	Black 黑色	PP
Typical Applications	典型应用			
<ul style="list-style-type: none"><li>Door sills</li><li>Grommets</li><li>Heavy-walled parts</li><li>Seals</li><li>Seals for windows and doors</li></ul>	<ul style="list-style-type: none"><li>门槛</li><li>垫圈</li><li>厚壁配件</li><li>密封件</li><li>门窗密封件</li></ul>			
Material Advantages	材料属性			
<ul style="list-style-type: none"><li>Adhesion to PP</li><li>Colorable</li><li>In-process recycling possible</li><li>Low density</li><li>Non-sticky surface</li><li>Optimized compression set</li><li>Resilience</li><li>UV and weathering resistance</li></ul>	<ul style="list-style-type: none"><li>包胶 PP</li><li>可染色</li><li>可在制造过程中回收利用</li><li>低密度</li><li>非粘性表面</li><li>出色的压缩形变特性</li><li>韧性</li><li>抗紫外线和耐候性</li></ul>			



## THERMOLAST® K | 热塑宝 K

Series 系列	The LW/PA Series is your lightweight material solution for applications with adhesion to PA. The compounds are available in natural and black colors.
LW/PA	LW/PA 系列具有轻质和 PA 包胶的特点，是满足相关领域应用的理想材料选择。可选自然色和黑色。

**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
TLxNGG-BLCK	50 – 70 Shore A	Black 黑色	PA
Typical Applications	典型应用		
<ul style="list-style-type: none"><li>Function and design elements</li><li>Grip applications</li><li>Heavy-walled parts</li><li>Soft touch</li></ul>	<ul style="list-style-type: none"><li>功能和设计要素</li><li>把手应用</li><li>厚壁配件</li><li>软触感</li></ul>		
Material Advantages	材料属性		
<ul style="list-style-type: none"><li>Adhesion to PA6 and PA12</li><li>Colorable</li><li>Dry haptics</li><li>Low density</li><li>Soft, non-sticky haptic</li></ul>	<ul style="list-style-type: none"><li>包胶 PA6 和 PA12</li><li>可染色</li><li>干爽触感</li><li>低密度</li><li>柔软不粘的触感</li></ul>		

## THERMOLAST® K | 热塑宝 K

Series 系列	The LW/UV Series is your lightweight material solution for applications with high UV- and weathering resistance. The compounds are available in black colors.
LW/UV	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。该系列的颜色为黑色。

**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
TLxOWG-BLCK	60 – 80 Shore A	Black 黑色	PP
Typical Applications	典型应用		
<ul style="list-style-type: none"><li>Door sills</li><li>Edge guards</li><li>Function and design elements</li><li>Heavy-walled parts</li><li>Roof rims</li><li>Soft touch</li><li>Water deflectors</li><li>Window encapsulations</li></ul>	<ul style="list-style-type: none"><li>门槛</li><li>防撞角</li><li>功能和设计要素</li><li>厚壁配件</li><li>车顶架</li><li>软触感</li><li>落水条</li><li>窗密封件</li></ul>		
Material Advantages	材料属性		
<ul style="list-style-type: none"><li>Adhesion to PP</li><li>Colorable</li><li>In-process recycling possible</li><li>Low density</li><li>Non-sticky surface</li><li>UV and weathering resistance</li></ul>	<ul style="list-style-type: none"><li>包胶 PP</li><li>可染色</li><li>可在制造过程中回收利用</li><li>低密度</li><li>非粘性表面</li><li>抗紫外线和耐候性</li></ul>		

## THERMOLAST® K | 热塑宝 K

Series 系列	The SCR series is your material solution for applications with scratch resistance requirements. The range is characterized by a pleasant feel to the touch. The compounds are available in natural colors and can be colored in many different ways.
SCR	SCR 系列材料解决方案适用于耐刮擦应用。该系列材料具有触感舒适的特点。这类化合物为本色，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
TCxSCE	30 – 80 Shore A	Natural 自然色	PP
Typical Applications	典型应用		
<ul style="list-style-type: none"><li>Function and design elements</li><li>Handles (tools, toolboxes, ski poles)</li><li>Soft touch surface (thumb wheels, push buttons, switches)</li></ul>	<ul style="list-style-type: none"><li>功能和设计要素</li><li>手柄（工具、工具箱、滑雪杖）</li><li>软质表面（拨轮、按键、开关）</li></ul>		
Material Advantages	材料属性		
<ul style="list-style-type: none"><li>Abrasion resistance</li><li>Adhesion to PP</li><li>Colorable</li><li>Controlled level of emission and odor</li><li>Optimized mechanical properties</li><li>Soft, velvety feel</li></ul>	<ul style="list-style-type: none"><li>耐磨性</li><li>包胶 PP</li><li>可染色</li><li>可控的排放和气味水平</li><li>优异的机械特性</li><li>天鹅绒般柔软触感</li></ul>		

## THERMOLAST® K | 热塑宝 K

Series 系列	The UV/AD2 series is your material solution for applications requiring UV resistance and adhesion to polar thermoplastics such as PC, ABS, PC/ABS, ASA and PMMA. The compounds are available in black.
UV/AD2	UV/AD2 系列材料解决方案适用于抗紫外线和包胶极性热塑性材料（如 PC、ABS、PC/ABS、ASA 和 PMMA）应用。这类化合物为黑色。

**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
TCxMUZ	55 – 85 Shore A	Black 黑色	PC, ABS, PC/ABS, ASA, PMMA
Typical Applications	典型应用		
<ul style="list-style-type: none"><li>Cable Box</li><li>Garden Equipment</li><li>Handle Devices</li><li>Measurement Tools</li><li>Security System (CCTV)</li></ul>	<ul style="list-style-type: none"><li>线束盒</li><li>园林设备</li><li>手持设备</li><li>测量工具</li><li>安保系统（CCTV）</li></ul>		
Material Advantages	材料属性		
<ul style="list-style-type: none"><li>Adhesion to PC, ABS, PC/ABS, ASA, SAN</li><li>Optimized flow properties</li><li>Optimized mechanical properties</li><li>Surface mapping</li><li>Temperature stability up to 90 °C</li><li>Weather resistant</li></ul>	<ul style="list-style-type: none"><li>包胶 PC、ABS、PC/ABS、ASA、SAN</li><li>优异的流动性</li><li>优异的机械特性</li><li>表面映射</li><li>90°C 下的温度稳定性</li><li>耐候性</li></ul>		
Regulations / Approvals	法规 / 批准		
<ul style="list-style-type: none"><li>PV 3929 Kalahari (2 years) – Weathering Test</li><li>PV 3930 Florida (2 years) – Weathering Test</li></ul>	<ul style="list-style-type: none"><li>PV 3929 卡拉哈里试验（2 年）- 耐候性测试</li><li>PV 3930 佛罗里达试验（2 年）- 耐候性测试</li></ul>		

## THERMOLAST® K | 热塑宝 K

Series 系列	The UV/AP series is your material solution for applications with UV resistance requirements. The compounds are available in black.
UV/AP	UV/AP 系列材料解决方案适用于抗紫外线应用。该系列产品的颜色为黑色。

**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
TCxUVZ	50 – 70 Shore A	Black 黑色	PP
Typical Applications		典型应用	
<ul style="list-style-type: none"><li>Roof rims</li><li>Water deflectors</li><li>Window encapsulations</li></ul>		<ul style="list-style-type: none"><li>车顶架</li><li>落水条</li><li>窗密封件</li></ul>	
Material Advantages		材料属性	
<ul style="list-style-type: none"><li>Adhesion to PP</li><li>In-process recycling possible</li><li>UV and weathering resistance</li><li>Weather resistant</li></ul>		<ul style="list-style-type: none"><li>包胶 PP</li><li>可在制造过程中回收利用</li><li>抗紫外线和耐候性</li><li>耐候性</li></ul>	

## THERMOLAST® K | 热塑宝 K

Series 系列	The UV/LD/b series is your material solution for applications requiring optimized mechanics and UV resistance. The compounds are available in black.
UV/LD/b	UV/LD/b 系列材料解决方案适用于要求卓越机械性能和抗紫外线的应用。该系列的颜色为黑色。

**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
TPxLDZ	30 – 80 Shore A / 35 Shore D	Black 黑色	PP
Typical Applications		典型应用	
<ul style="list-style-type: none"><li>Cowls gaskets</li><li>Function and design elements</li><li>Roof rims</li><li>Water deflectors</li><li>Window encapsulations</li></ul>		<ul style="list-style-type: none"><li>通风隔栅垫片</li><li>功能和设计要素</li><li>车顶架</li><li>落水条</li><li>窗密封件</li></ul>	
Material Advantages		材料属性	
<ul style="list-style-type: none"><li>Adhesion to PP</li><li>Heat stability</li><li>In-process recycling possible</li><li>Optimized compression set</li><li>Optimized mechanical properties</li><li>Surface mapping</li><li>Weather resistant</li></ul>		<ul style="list-style-type: none"><li>包胶 PP</li><li>热稳定性</li><li>可在制造过程中回收利用</li><li>出色的压缩形变特性</li><li>优异的机械特性</li><li>表面映射</li><li>耐候性</li></ul>	
Regulations / Approvals		法规 / 批准	

- DIN 75201-B – Fogging
- Outdoor Weathering Arizona 24 month SAE J1976
- Outdoor Weathering Florida 24 month SAE J1976
- PV 3929 Kalahari (1 year) – Weathering Test
- PV 3929 Kalahari (2 years) – Weathering Test
- PV 3930 Florida (1 year) – Weathering Test
- PV 3930 Florida (2 years) – Weathering Test
- UL 94 HB
- VDA 270 B3 – Odor

- DIN 75201-B - 雾化值
- 室外耐候性测试 亚利桑那 24 个月 SAE J 1976
- 室外耐候性测试 佛罗里达 24 个月 SAE J 1976
- PV 3929 卡拉哈里试验（1 年）- 耐候性测试
- PV 3929 卡拉哈里试验（2 年）- 耐候性测试
- PV 3930 佛罗里达试验（1 年）- 耐候性测试
- PV 3930 佛罗里达试验（2 年）- 耐候性测试
- UL 94 HB
- VDA 270 B3 - 气味

## THERMOLAST® K | 热塑宝 K

Series 系列	The VS/AD/HM series is your material solution for applications with velvety surfaces and wear resistance requirements. It convinces by its adhesion properties to polar thermoplastics as well as by its resistance to chemicals, especially sebum skin grease. The compounds are available in black and natural colors. Natural color variants can be colored in many different ways.
VS/AD/HM	VS/AD/HM 系列材料解决方案适用于要求绒面触感和耐磨性应用。它对极性热塑性材料具有包胶性，对化学品（尤其是皮脂润滑脂）具有耐受性。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
TCxCEN TCxCEU TCxCEZ	60 – 80 Shore A 60 – 80 Shore A 60 – 80 Shore A	Natural 自然色 Natural 自然色 Black 黑色	ABS, ASA, PA, PC, PC/ABS, SAN
Typical Applications		典型应用	
<ul style="list-style-type: none"><li>Cell phone covers</li><li>Cosmetic packaging</li><li>Ear phones</li><li>Function and design elements</li><li>Handles (hand tools and power tools etc.)</li><li>Remote controls</li><li>Soft touch surface (thumb wheels, push buttons, switches)</li><li>Wearables</li></ul>		<ul style="list-style-type: none"><li>手机套</li><li>化妆品包装</li><li>耳机</li><li>功能和设计要素</li><li>手柄（手动工具和电动工具等）</li><li>遥控器</li><li>软质表面（拨轮、按键、开关）</li><li>可穿戴设备</li></ul>	
Material Advantages		材料属性	

<ul style="list-style-type: none"><li>Abrasion resistance</li><li>Adhesion to PA6 and PA12</li><li>Adhesion to PC, ABS, PC/ABS, ASA, SAN</li><li>Halogen content (chlorine + bromine) &lt; 900 ppm</li><li>Optimized mechanical properties</li><li>Resistance to skin oils, sunscreen or olive oil</li><li>Scratch resistance</li><li>Soft, velvety feel</li></ul>		<ul style="list-style-type: none"><li>耐磨性</li><li>包胶 PA6 和 PA12</li><li>包胶 PC、ABS、PC/ABS、ASA、SAN</li><li>卤素含量（氯+溴）&lt; 900 ppm</li><li>优异的机械特性</li><li>耐皮肤油脂、防晒霜或橄榄油</li><li>耐刮擦</li><li>天鹅绒般柔软触感</li></ul>
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Regulations / Approvals		法规 / 批准	
<ul style="list-style-type: none"><li>DIN 75201-B – Fogging</li><li>DIN EN ISO 105-B06 Method 3</li><li>UL 94 HB</li><li>VDA 270 B3 – Odor</li></ul>		<ul style="list-style-type: none"><li>DIN 75201-B - 雾化值</li><li>DIN EN ISO 105-B06 Method 3</li><li>UL 94 HB</li><li>VDA 270 B3 - 气味</li></ul>	

## THERMOLAST® A | 热塑宝 A

Series 系列	The UV/AD1 series is your material solution for applications requiring UV resistance and adhesion to polar thermoplastics such as PC, ABS and PC/ABS. The compounds are available in black and natural colors. Natural color variants can be colored in many different ways.
UV/AD1	UV/AD1 系列材料解决方案适用于抗紫外线和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
TAxAOZ	60 – 80 Shore A	Black 黑色	ABS, PC, PC/ABS
Typical Applications		典型应用	
<ul style="list-style-type: none"><li>Fastenings</li><li>Flexible Connections</li><li>Handles (hand tools and power tools etc.)</li><li>Static window encapsulations</li></ul>		<ul style="list-style-type: none"><li>紧固件</li><li>柔性连接器</li><li>手柄（手动工具和电动工具等）</li><li>静态玻璃封边</li></ul>	
Material Advantages		材料属性	
<ul style="list-style-type: none"><li>Adhesion to PC, ABS, PC/ABS, ASA, SAN</li><li>Adhesion to PET and PETG</li><li>Optimized flow properties</li><li>Resistance to grease and oils</li><li>Surface mapping</li><li>Weather resistant</li></ul>		<ul style="list-style-type: none"><li>包胶 PC、ABS、PC/ABS、ASA、SAN</li><li>包胶 PET 和 PETG</li><li>优异的流动性</li><li>耐油脂</li><li>表面映射</li><li>耐候性</li></ul>	
Regulations / Approvals		法规 / 批准	

- CSTB/DER/BV-PEM
- Outdoor Weathering Arizona 24 month SAE J1976
- Outdoor Weathering Florida 24 month SAE J1976
- PV 3929 Kalahari (1 year) – Weathering Test
- PV 3929 Kalahari (2 years) – Weathering Test
- PV 3930 Florida (1 year) – Weathering Test
- PV 3930 Florida (2 years) – Weathering Test

- CSTB/DER/BV-PEM
- 室外耐候性测试 亚利桑那 24 个月 SAE J 1976
- 室外耐候性测试 佛罗里达 24 个月 SAE J 1976
- PV 3929 卡拉哈里试验（1 年）- 耐候性测试
- PV 3929 卡拉哈里试验（2 年）- 耐候性测试
- PV 3930 佛罗里达试验（1 年）- 耐候性测试
- PV 3930 佛罗里达试验（2 年）- 耐候性测试



## Thermolast® V | 热塑宝 V

Series 系列	The LTP series is your material solution for applications with sealing function and temperature resistance requirements. The compounds are characterized by their adhesion to PP. They are available in black and natural colors. Natural color variants can be colored in many different ways.
LTP	LTP 系列材料解决方案适用于要求密封性和耐高温应用。这类化合物具有包胶 PP 的特点。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
TVxLVN		50 – 90 Shore A		Natural	自然色	pp	
TVxLVZ		50 – 90 Shore A		Black	黑色		
Typical Applications		典型应用					
	<ul style="list-style-type: none"><li>Attenuators for electronic housings</li><li>Connectors</li><li>Distance profiles</li><li>Fastenings</li><li>Grommets</li><li>Mechanical components</li><li>Seals</li></ul>			<ul style="list-style-type: none"><li>电器外壳消声器</li><li>连接器</li><li>间隔外形</li><li>紧固件</li><li>垫圈</li><li>机械部件</li><li>密封件</li></ul>			
Material Advantages		材料属性					
	<ul style="list-style-type: none"><li>Adhesion to PP</li><li>Hysteresis</li><li>In-process recycling possible</li><li>Long-term sealing function</li><li>Optimized compression set</li><li>Optimized mechanical properties</li><li>Temperature stability up to 135 °C</li></ul>			<ul style="list-style-type: none"><li>包胶 PP</li><li>滞后</li><li>可在制造过程中回收利用</li><li>长期密封功能</li><li>出色的压缩形变特性</li><li>优异的机械特性</li><li>135 °C下的温度稳定性</li></ul>			
Regulations / Approvals		法规 / 批准					
	<ul style="list-style-type: none"><li>UL 94 HB</li></ul>			<ul style="list-style-type: none"><li>UL 94 HB</li></ul>			

## Thermolast® V | 热塑宝 V

Series 系列	The LTP/PA range is your material solution for sealing applications and temperature resistance requirements. The compounds are characterized by their adhesion to PA. The compounds are available in black and natural. Natural color variants can be colored in a variety of ways.
LTP/PA	LTP/PA 系列材料解决方案适用于要求密封性和耐高温应用。这类化合物具有包胶 PA 的特点。该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
TVxVAN		60 – 80 Shore A		Natural	自然色	PA	
TVxVAZ		50 – 80 Shore A		Black	黑色		
Typical Applications		典型应用					
	<ul style="list-style-type: none"><li>Attenuators for electronic housings</li><li>Fastenings</li><li>Grommets</li><li>Mechanical components</li><li>Seals</li><li>Seals for switch boxes</li></ul>			<ul style="list-style-type: none"><li>电器外壳消声器</li><li>紧固件</li><li>垫圈</li><li>机械部件</li><li>密封件</li><li>开关盒密封件</li></ul>			
Material Advantages		材料属性					
	<ul style="list-style-type: none"><li>Adhesion to PA6 and PA6.6, up to 50% glass fiber</li><li>Adhesion to PA12</li><li>Hysteresis</li><li>In-process recycling possible</li><li>Long-term sealing function</li><li>Optimized compression set</li><li>Optimized mechanical properties</li><li>Temperature stability up to 135 °C</li></ul>			<ul style="list-style-type: none"><li>包胶 PA6 和 PA6.6，玻璃纤维高达 50%</li><li>包胶 PA12</li><li>滞后</li><li>可在制造过程中回收利用</li><li>长期密封功能</li><li>出色的压缩形变特性</li><li>优异的机械特性</li><li>135 °C下的温度稳定性</li></ul>			
Regulations / Approvals		法规 / 批准					
	<ul style="list-style-type: none"><li>UL 94 HB</li></ul>			<ul style="list-style-type: none"><li>UL 94 HB</li></ul>			

## For Tec E® | 尼塑宝®

Series 系列	The AD/PAX/CR series is your material solution for 2-component seals in electronic applications and softtouch handles. The material is resistant to skin oils, sun cream and olive oil. The compounds are characterized by their adhesion to polyamides such as PA 12, PA 6 and PA 6.6, partially aromatic polyamides and polyarylamides. The compounds are available in black and natural colors. Natural color variants can be colored in many different ways.
AD/PAX/CR	AD/PAX/CR 系列材料解决方案适用于电子应用中的双组件密封和柔软触感手柄。该系列材料可抵抗皮肤油脂、防晒霜和橄榄油。这类化合物具有包胶聚酰胺（如 PA 12、PA 6 和 PA 6.6，部分芳族聚酰胺和聚丙烯酰胺）的特点。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
OCxOAN		60 – 80 Shore A		Natural	自然色	PA	
OCxOAZ		60 – 80 Shore A		Black	黑色		
Typical Applications		典型应用					
	<ul style="list-style-type: none"><li>Attenuators for electronic housings</li><li>Connectors</li><li>Handles (Powertool)</li><li>Seals</li><li>Seals for computer and laptop screens</li><li>Seals for housings</li></ul>			<ul style="list-style-type: none"><li>电器外壳消声器</li><li>连接器</li><li>手柄（电动工具）</li><li>密封件</li><li>计算机和笔记本电脑的显示屏密封件</li><li>机壳密封件</li></ul>			
Material Advantages		材料属性					
	<ul style="list-style-type: none"><li>Adhesion to PA6 and PA6.6, up to 50% glass fiber</li><li>Adhesion to PA12</li><li>Adhesion to partially aromatic polyamides (PAX) and polyarylamides (PARA)</li><li>Colorable</li><li>Resistance to skin oils, sunscreen or olive oil</li></ul>			<ul style="list-style-type: none"><li>包胶 PA6 和 PA6.6，玻璃纤维高达 50%</li><li>包胶 PA12</li><li>包胶部分芳族聚酰胺（PAX）和聚丙烯酰胺（PARA）</li><li>可染色</li><li>耐皮肤油脂、防晒霜或橄榄油</li></ul>			
Regulations / Approvals		法规 / 批准					
	<ul style="list-style-type: none"><li>UL 94 HB</li></ul>					<ul style="list-style-type: none"><li>UL 94 HB</li></ul>	



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