



**CONSUMER**  
消费品应用



**UNIQUELY VERSATILE**  
特有的多功能性

# 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 with you the challenges you face 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



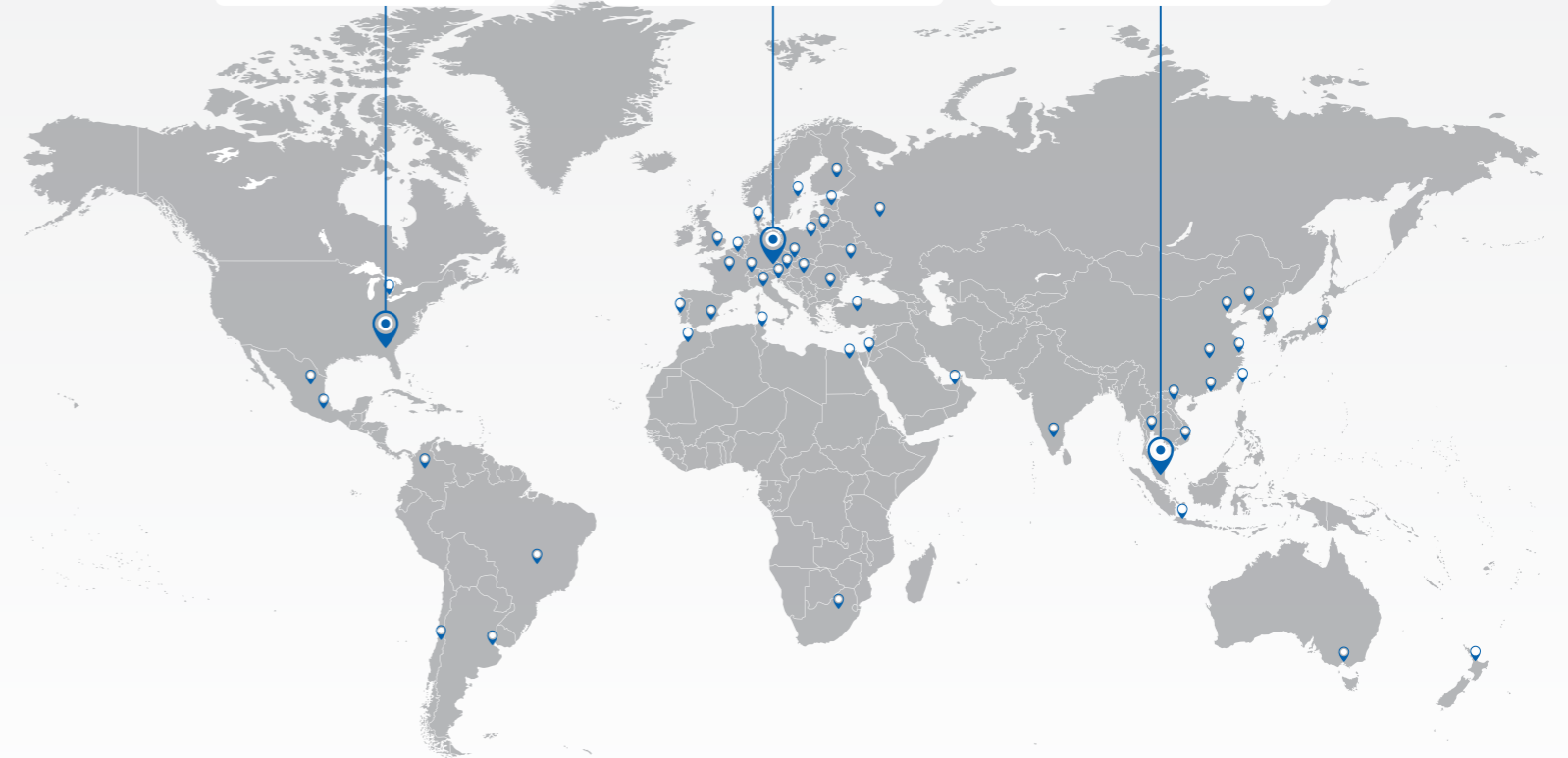
Headquarters  
总部

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

MAKE LIFE EASY FOR YOURSELF

## 市场

让生活更轻松



Products made with TPEs pass through many hands and are on the tip of people's tongues everywhere – literally. Toothbrushes and stationery items are just some of the many applications showing how essential thermoplastics elastomers have become. TPEs are not only used for sports articles, toys and personal care products, but are also becoming more popular in packaging.

KRAIBURG TPE has carried out an intensive study of the consumer market and its requirements. You're on the safe side with us: Even during the development stage for our TPEs, we take into account established approvals such as Commission Regulation (EU) No 10/2011, Code of Federal Regulations Title 21 (21CFR) of the U.S. Food and Drug Administration (FDA), as well as the Chinese GB 4806.6-2016 standard. Selected compounds also comply with DIN EN 71-3.

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.

TPE 制品几乎出现在人们触手可及的任何地方，甚至接触到人的口腔和舌头。牙刷、卫生用品只是冰山一角，还有无数种应用都采用了这种热塑性弹性体。TPE 不仅大量用于体育用品、玩具和个人护理产品，而且在包装行业也越来越受欢迎。

凯柏胶宝® 对消费品市场及其要求进行了深入研究。选择我们，就是选择了安全：即使在 TPE 的开发阶段，我们也会全力考量现有的各类标准，如欧盟法规 (EU) 第 10/2011 号、美国食品药品监督管理局 (FDA) 的联邦法规第 21 条 (21CFR) 以及中国国标 GB 4806.6-2016。所选的化合物也符合 DIN EN 71-3 标准。

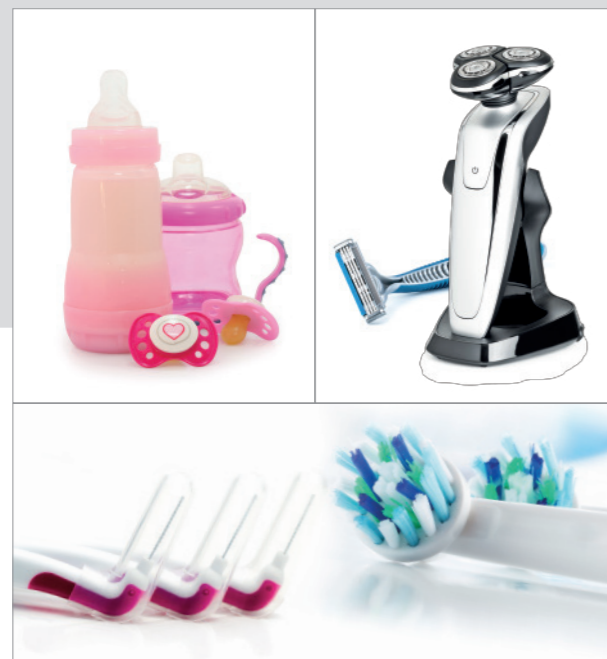
我们的轻质 TPE 密度低至 0.7 g/cm<sup>3</sup>，可真正减轻各应用领域组件和最终产品的重量。

# APPLICATION AREAS

## GETTING THE JOB DONE EVERYWHERE

### 应用领域

TPE 无处不在, 放心, 可靠



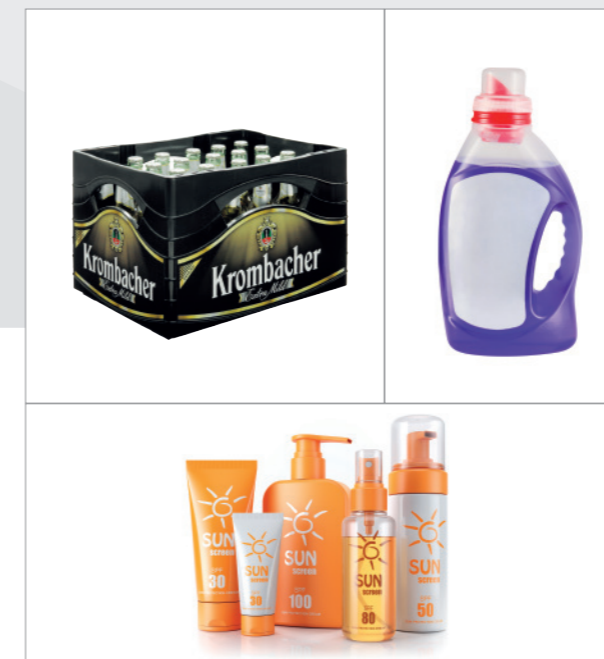
#### CONSUMER CARE 护理消费品

- Infant products
- Interdental devices
- Shavers, electrical shavers
- Toothbrushes, electrical toothbrushes
- 婴儿用品
- 牙缝清理用品
- 剃须刀、电动剃须刀
- 牙刷、电动牙刷



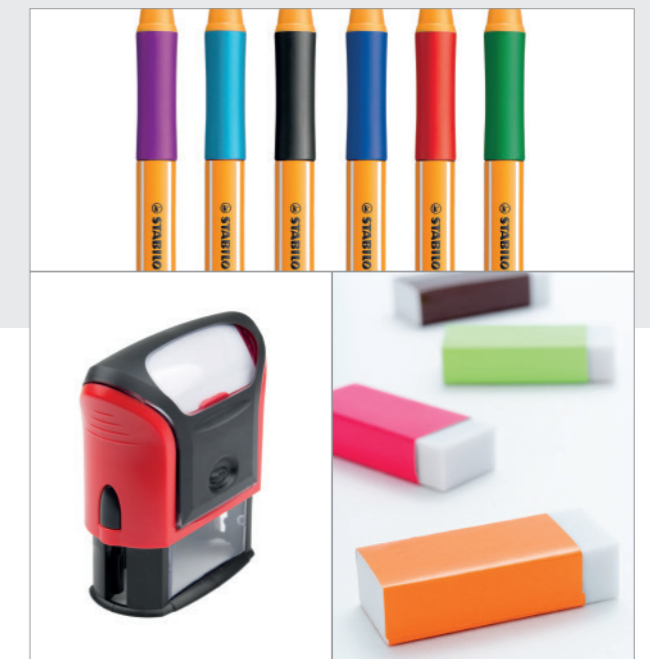
#### FOOD CONTACT APPLICATIONS 食品接触应用

- Coffee capsules
- Cuttlery
- Dispenser
- Drinking bottles
- Food container
- 咖啡胶囊
- 餐具
- 配料器
- 饮料瓶
- 食品容器



#### NON-FOOD PACKAGING 非食品包装

- Crates
- Containers
- Products that need impact modifier
- Tubes
- 板条箱
- 容器
- 需要冲击改性剂的产品
- 软管



#### OFFICE SUPPLIES 办公用品

- Accessories
- Erasers
- Pens
- Stamps
- 配件
- 橡皮擦
- 签字笔
- 印章

# APPLICATION AREAS

GETTING THE JOB DONE EVERYWHERE

## 应用领域

TPE 无处不在, 放心, 可靠



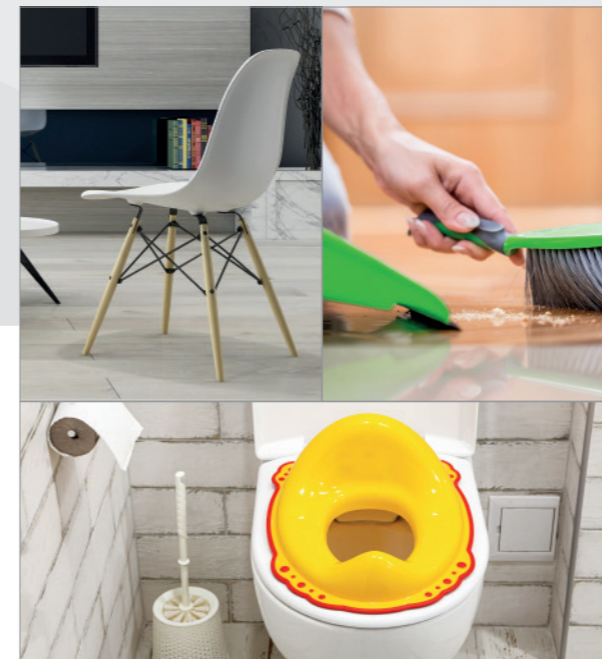
### TOYS 玩具

- Adult toys
- Baby & kid toys
- Electronical toys
- Pet toys
- 成人玩具
- 婴儿与幼儿玩具
- 电动玩具
- 宠物玩具



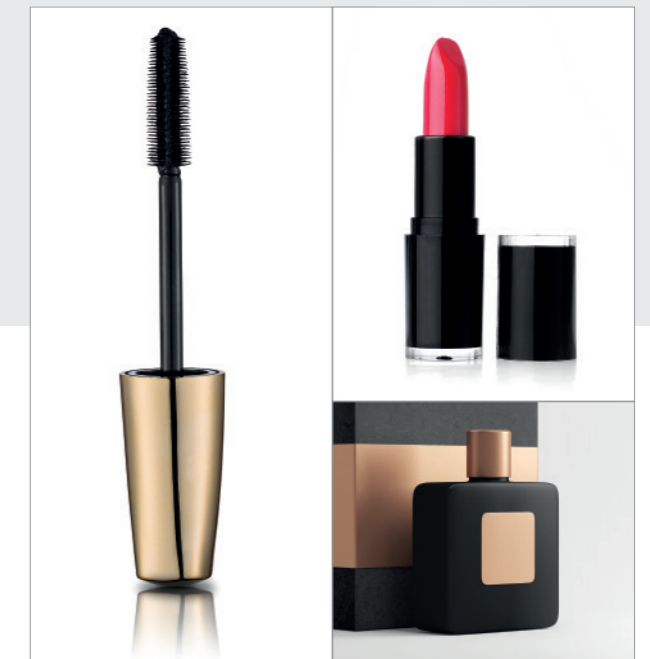
### SPORT 体育

- Ball & racket games
- Cycling, fitness & gym
- Fishing & hunting
- Outdoor & recreation
- Winter sport
- 球类和球拍类运动
- 骑行、健身与健身房
- 钓鱼与狩猎
- 户外与休闲
- 冬季运动



### HOUSEHOLD ARTICLES 家居用品

- Brushes
- Cleaning accessories
- Furnitures
- 刷子
- 清洁用品
- 家具



### COSMETIC APPLICATIONS 美妆洗护

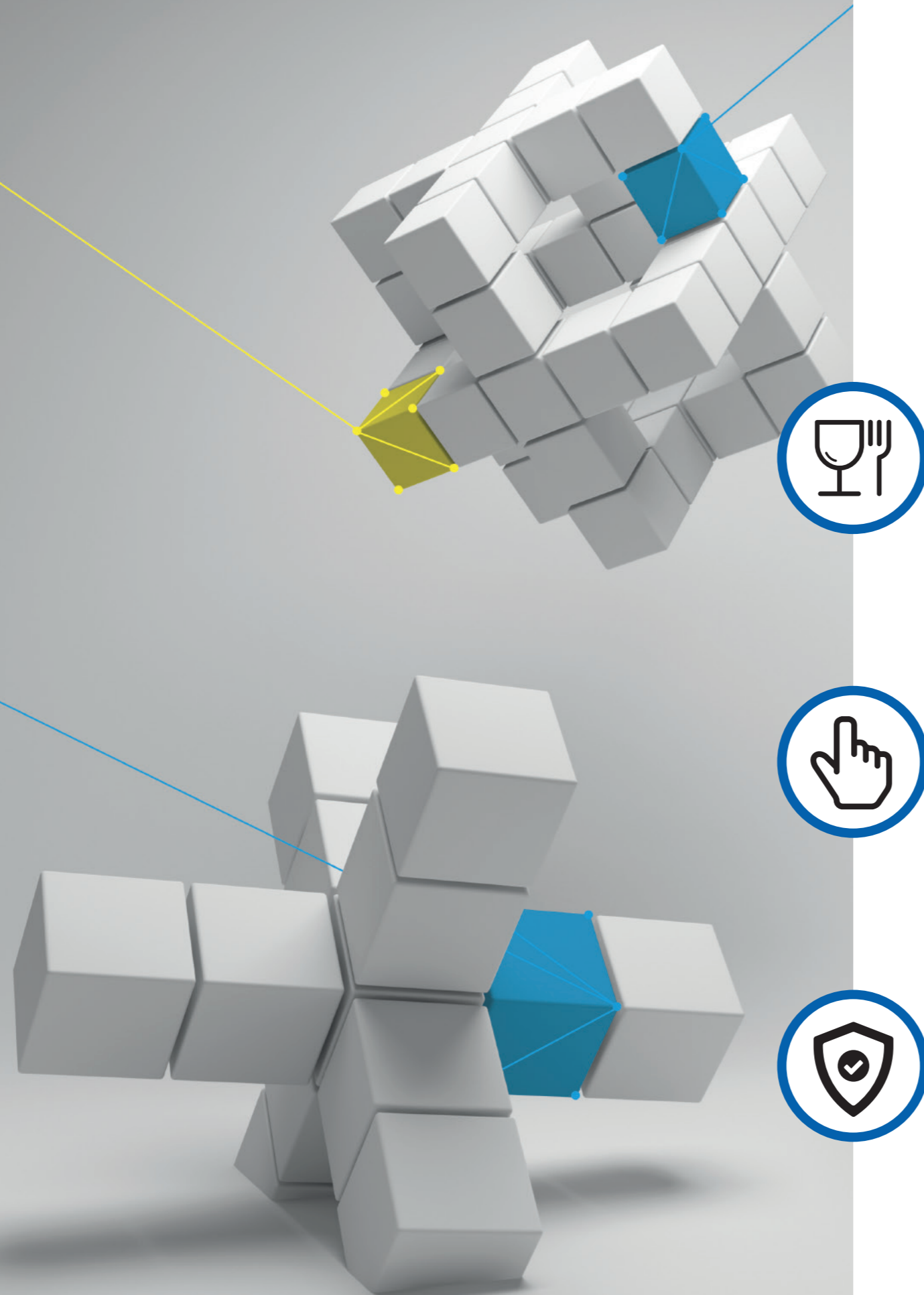
- Droppers and dispenser systems
- Lipsticks & lipgloss
- Mascara
- Perfume bottles
- Tubes
- 滴管和配料器系统
- 口红与唇彩
- 睫毛膏
- 香水瓶
- 软管

# MATERIAL PROPERTIES

STAND ALONE OR IN COMBINATION

## 材料特性

单独加工或多组分包胶



### CONTACT WITH FOOD

**Always to everybody's taste**

Materials with food contact are indispensable in the consumer sector. Even during the development of these special TPEs, we have taken into account the established market requirements such as Regulation (EU) No. 10/2011, FDA - Code of Federal Regulations (CFR), Title 21 and EN 71/ 3. We'll be happy to provide you with comprehensive advice on relevant approvals and conformities even before your project starts.

### 接触食品

**满足每个人的口味**

在消费品领域，与食品接触的材料是绝对必不可少的。在这类特殊 TPE 的开发阶段，我们会全面考量不同市场的法规标准，例如，欧盟法规 (EU) 第 10/2011 号、美国食品药品监督管理局 (FDA) 的联邦法规第 21 条 (CFR) 以及中国国标 GB 4806.6-2016。从项目一开始，我们会始终为您提供有关批准和符合性法规的全面建议。

### TACTILE QUALITIES

**Right Touch**

From toothbrushes and household appliances through to bottle crates, handles that are pleasant to touch are becoming increasingly important. TPEs make this quality literally tangible, and that's why thermoplastic elastomers turn up in lots of soft-touch applications, enhancing the value of the end product by various effects.

### 触感品质

**适宜的触感**

从牙刷、家居用品、酒瓶板条箱到各种手柄，舒适的手感越来越重要。TPE 让这种品质变得看得见、摸得着，正因如此，热塑性弹性体大量出现在了需要柔软触感的应用中，通过各种效果提升了最终产品的价值。

### RESISTANCY

**Resists where others fail**

Thermoplastic elastomers from KRAIBURG TPE are generally characterized by good resistance to aqueous substances such as acids, bases or salts. Special compounds also provide excellent resistance to detergents, sebum oils and creams.

### 坚固耐久

**历久弥坚**

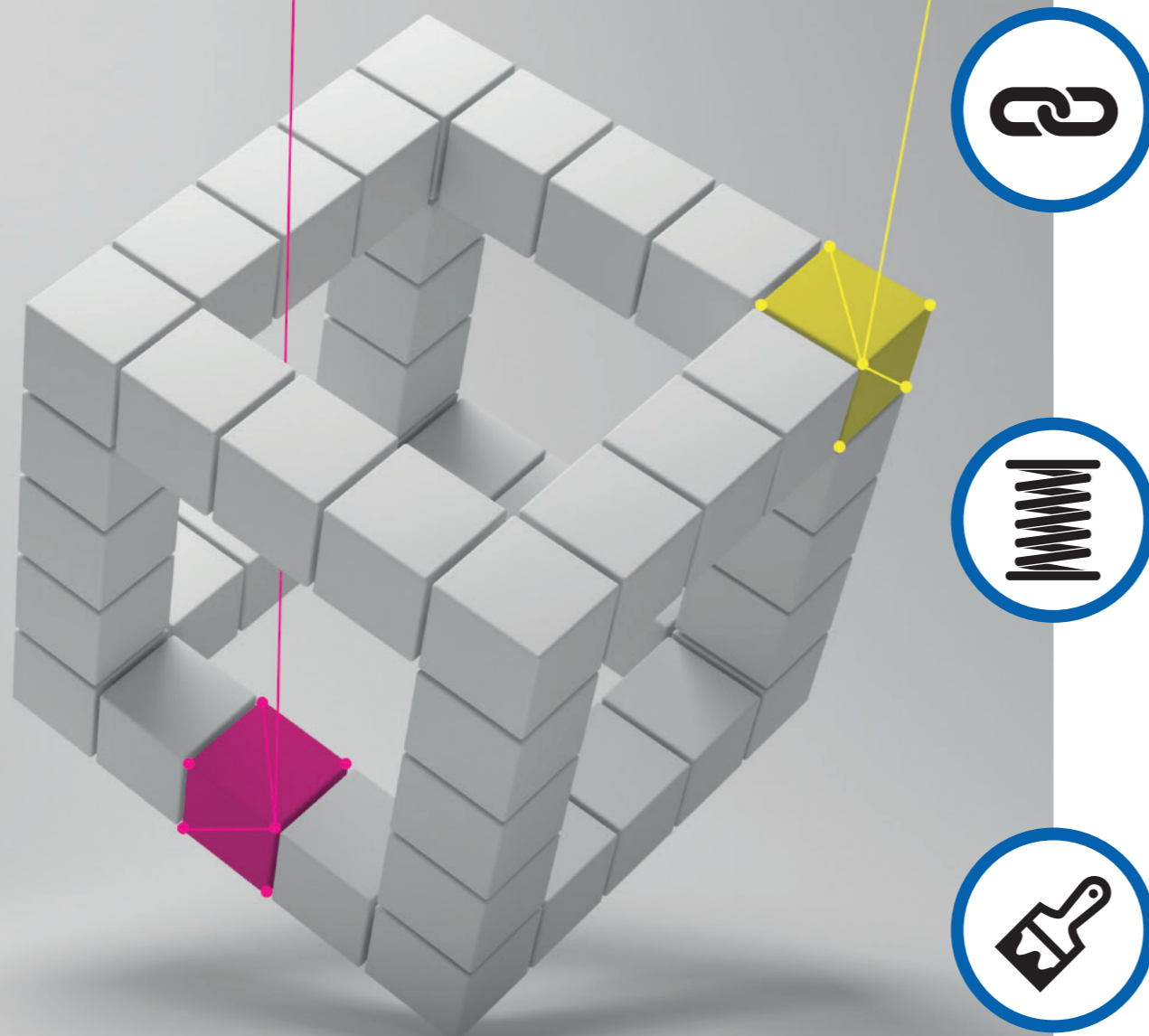
凯柏胶宝® 的热塑性弹性体一直以来凭借对水性物质（如酸、碱和盐）具有出色的耐受性而闻名。特殊的化合物还对洗涤剂、皮脂和乳霜有优良的耐受性。

# MATERIAL PROPERTIES

STAND ALONE OR IN COMBINATION

## 材料特性

单独加工或多组分包胶



### ADHESION

**Always sticking to its promises**

Our TPEs have adhesion to a wide variety of plastics. The adhesion of the materials produces reliable, durable and strong results. Our compounds are a safe choice for your multi-component and co-extrusion applications – from personal hygiene articles to toys.

### 包胶性

**我们的产品在包胶性方面表现出众**

我们的 TPE 与大多数塑料材质具有令人满意的包胶性。材料优良的包胶性保证了制品的可靠性、耐久而强韧性。从个人卫生用品到玩具，凯柏胶宝® TPE 化合物是多组分和共挤出应用的安全材料选择。

### ELASTICITY

**Seals things off reliably and keeps them tight**

Whether it's for closure valves or container seals – extremely good deformation recovery is a major performance characteristic in TPEs. The specially developed compounds are ideal for a wide variety of applications in the whole field of household articles, office materials, personal care and hygiene products.

### 弹性

**可靠安心的密封**

无论是用于截止阀还是容器密封件，TPE 出色的变形恢复性能都能发挥效用。从家居用品、办公用品、个人护理和卫生用品，我们专门开发的化合物适合各式各样的应用领域。

### 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。吸睛的外观始终都具有提升价值的效果。凯柏胶宝®可以帮助您赋予产品独一无二的色彩，使其更加与众不同。我们的配色团队为 TPE 化合物设计提供极高精度的色调。我们所有的色彩不仅具有高质量和耐用的特点，还能帮助您实现全球供应链的安全性。

# 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'll dedicate ourselves to finding the best possible solution. Custom-engineered and extremely high-quality compounds provide the basis for this.

In addition, you'll 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'll 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 isn't just a buzzword at KRAIBURG TPE, it's 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

CONSUMER SECTOR

## TPE 产品系列

消费品应用

热塑宝 K  
THERMOLAST® K

包胶材料  
Adhesion Materials

FC/AD1	ABS, PETG, PC
FC/AD1/ht	ABS, PETG, PC
FC/AD1/PS	ABS, PC, PC/ABS, PS
FC/AD/PA	PA
FC/AD/PE	HDPE, LDPE, LLDPE
FC/AP	PP
FC/CS	PE, PP
FC/ht	PP
FC/S	PP

### THERMOLAST® K | 热塑宝 K

Series 系列

The FC/AD1 series is your material solution for applications of daily life with regulatory requirement. It is characterized by its adhesion to polar thermoplastics such as PC, ABS and PETG. The natural-colored materials can be colored in many different ways.

FC/AD1

FC/AD1系列是日常生活应用领域的理想材料解决方案。该系列材料符合法律要求，具有对极性热塑性塑料（如 PC、ABS 和 PETG）的包胶性，天然色泽可通过多种方式着色。

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
TFxFMA	50 – 90 Shore A	Natural 自然色	ABS, PETG, PC
TFxFMS	30 – 40 Shore A	Natural 自然色	

Typical Applications	典型应用
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- Function and design elements
- Grip applications
- Household articles
- Packaging (for food and care products)
- Razors
- Seals
- Toothbrushes
- Toys

- 功能和设计要素
- 把手应用
- 家居用品
- 包装（用于食品和护理产品）
- 剃须刀
- 密封件
- 牙刷
- 玩具

Material Advantages	材料属性
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- Adhesion to PC, ABS, PC/ABS, ASA, SAN
- Adhesion to PET and PETG
- Colorable
- Halogen-free (according to IEC 61249-2-21)
- In-process recycling possible
- Optimized flow properties
- Soft touch surface
- Soft, velvety feel

- 包胶 PC、ABS、PC/ABS、ASA、SAN
- 包胶 PET 和 PETG
- 可染色
- 不含卤素（符合 IEC 61249-2-21 标准）
- 可在制造过程中回收利用
- 优异的流动性
- 柔软的表面触感
- 天鹅绒般柔软触感

Regulations / Approvals	法规 / 批准
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- EN71-3
- Regulation (EU) No 10/2011
- UL 94 HB
- US CFR 21 FDA (raw material conformity)

- EN71-3
- 欧盟法规 (EU) No 10/2011
- UL 94 HB
- US CFR 21 FDA (原料符合性)

### THERMOLAST® K | 热塑宝 K

Series 系列

The FC/AD1/ht series is your transparent material solution for daily life applications with regulatory requirements. It is characterized by its adhesion to polar thermoplastics such as PC, ABS and PETG. The transparent materials can be colored in many different ways.

FC/AD1/ht

FC/AD1/ht 系列是日常生活应用领域理想的透明材料解决方案，符合相关法律要求。具有对极性热塑性塑料（如 PC、ABS 和 PETG）的包胶性，透明状态，可通过多种方式着色。

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
TFxTAA	50 – 80 Shore A	Transparent 透明	ABS, PETG, PC

Typical Applications	典型应用
----------------------	------

- Function and design elements
- Grip applications
- Household articles
- Packaging (for food and care products)
- Razors
- Seals
- Toothbrushes
- Toys

- 功能和设计要素
- 把手应用
- 家居用品
- 包装（用于食品和护理产品）
- 剃须刀
- 密封件
- 牙刷
- 玩具

Material Advantages	材料属性
---------------------	------

- Adhesion to PC, ABS, PC/ABS, ASA, SAN
- Adhesion to PET and PETG
- Colorable, also in effect colors
- Halogen-free (according to IEC 61249-2-21)
- Low density
- Optimized mechanical properties
- Soft, velvety feel
- Transparency

- 包胶 PC、ABS、PC/ABS、ASA、SAN
- 包胶 PET 和 PETG
- 可染色，也可做特殊效果颜色
- 不含卤素（符合 IEC 61249-2-21 标准）
- 低密度
- 优异的机械特性
- 天鹅绒般柔软触感
- 透明

Regulations / Approvals	法规 / 批准
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- EN71-3
- US CFR 21 FDA (raw material conformity)

- EN71-3
- US CFR 21 FDA (原料符合性)

## THERMOLAST® K | 热塑宝 K

<b>Series 系列</b>	The FC/AD1/PS series is your material solution for applications of daily life with regulatory requirements. It is characterized by its adhesion to polar thermoplastics such as ABS, PC, PC/ABS and PS. The natural coloured materials can be colored in many different ways.
<b>FC/AD1/PS</b>	FC/AD1/PS 系列是日常生活应用领域理想的材料解决方案, 符合相关法律要求, 具有对极性热塑性塑料 (如 ABS、PC、PC/ABS 和 PS) 的包胶性, 天然色泽可通过多种方式着色。

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
TFxADN		30 – 90 Shore A	Natural 自然色	ABS, PC, PC/ABS, PS
<b>Typical Applications</b>	<b>典型应用</b>			
<ul style="list-style-type: none"><li>Food bumper</li><li>Function and design elements</li><li>Grip applications</li><li>Household articles</li><li>Razors</li><li>Soft touch surface (thumb wheels, push buttons, switches)</li><li>Toothbrushes</li><li>Toys</li></ul>	<ul style="list-style-type: none"><li>食物固定器</li><li>功能和设计要素</li><li>把手应用</li><li>家居用品</li><li>剃须刀</li><li>软质表面 (拨轮、按键、开关)</li><li>牙刷</li><li>玩具</li></ul>			
<b>Material Advantages</b>	<b>材料属性</b>			
<ul style="list-style-type: none"><li>Adhesion to PC, ABS, PC/ABS, ASA, SAN</li><li>Adhesion to PET and PETG</li><li>Adhesion to PS</li><li>Colorable</li><li>Halogen-free (according to IEC 61249-2-21)</li><li>Soft, velvety feel</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>包胶 PS</li><li>可染色</li><li>不含卤素 (符合 IEC 61249-2-21 标准)</li><li>天鹅绒般柔软触感</li></ul>			
<b>Regulations / Approvals</b>	<b>法规 / 批准</b>			
<ul style="list-style-type: none"><li>EN71-3</li><li>Regulation (EU) No 10/2011</li><li>US CFR 21 FDA (raw material conformity)</li></ul>	<ul style="list-style-type: none"><li>EN71-3</li><li>欧盟法规 (EU) No 10/2011</li><li>US CFR 21 FDA (原料符合性)</li></ul>			

## THERMOLAST® K | 热塑宝 K

<b>Series 系列</b>	The FC/AD/PA series is your material solution for everyday life applications with regulatory requirements. The series is characterized by its PA adhesion. The translucent materials can be colored in many different ways.
<b>FC/AD/PA</b>	FC/AD/PA 系列是日常生活应用领域的理想材料解决方案, 符合相关法律要求, 具有 PA 包胶性, 半透明状态可通过多种方式着色。

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
TFxPAO		40 – 80 Shore A	Translucent 半透明	PA
<b>Typical Applications</b>	<b>典型应用</b>			
<ul style="list-style-type: none"><li>Cosmetic packaging</li><li>Ear phones</li><li>Flexible Connections</li><li>Function and design elements</li><li>Handles and grips for consumer applications</li><li>Household articles</li><li>Toothbrushes</li></ul>	<ul style="list-style-type: none"><li>化妆品包装</li><li>耳机</li><li>柔性连接器</li><li>功能和设计要素</li><li>消费品应用的手柄和把手</li><li>家居用品</li><li>牙刷</li></ul>			
<b>Material Advantages</b>	<b>材料属性</b>			
<ul style="list-style-type: none"><li>Abrasion resistance</li><li>Adhesion to PA6 and PA6.6, up to 50% glass fiber</li><li>Adhesion to PA12</li><li>Colorable</li><li>Optimized flow properties</li><li>Optimized mechanical properties</li></ul>	<ul style="list-style-type: none"><li>耐磨性</li><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>优异的流动性</li><li>优异的机械特性</li></ul>			
<b>Regulations / Approvals</b>	<b>法规 / 批准</b>			
<ul style="list-style-type: none"><li>Regulation (EU) No 10/2011</li></ul>	<ul style="list-style-type: none"><li>欧盟法规 (EU) No 10/2011</li></ul>			

## THERMOLAST® K | 热塑宝 K

<b>Series 系列</b>	The FC/AD/PE series is your material solution for everyday life applications with regulatory requirements. The series is characterized by its adhesion to LDPE, LLDPE and HDPE. The natural-colored materials can be colored in many different ways.
<b>FC/AD/PE</b>	FC/AD/PE 系列是日常生活应用领域的理想材料解决方案。该系列材料符合法律要求, 具有对 LDPE、LLDPE 和 HDPE 的包胶性。天然色泽可通过多种方式着色。

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
TFxPEN		50 – 80 Shore A	Natural 自然色	HDPE, LDPE, LLDPE
<b>Typical Applications</b>	<b>典型应用</b>			
<ul style="list-style-type: none"><li>Handles and grips for consumer applications</li><li>Household articles</li><li>Packaging (for food and care products)</li><li>Toothbrushes</li></ul>	<ul style="list-style-type: none"><li>消费品应用的手柄和把手</li><li>家居用品</li><li>包装 (用于食品和护理产品)</li><li>牙刷</li></ul>			
<b>Material Advantages</b>	<b>材料属性</b>			
<ul style="list-style-type: none"><li>Adhesion to LDPE, LLDPE, and HDPE</li><li>Colorable</li><li>Dry haptics</li><li>Halogen-free (according to IEC 61249-2-21)</li><li>In-process recycling possible</li><li>Non-sticky surface</li></ul>	<ul style="list-style-type: none"><li>包胶 LDPE、LLDPE 和 HDPE</li><li>可染色</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>非粘性表面</li></ul>			
<b>Regulations / Approvals</b>	<b>法规 / 批准</b>			
<ul style="list-style-type: none"><li>EN71-3</li><li>Regulation (EU) No 10/2011</li><li>US CFR 21 FDA (raw material conformity)</li></ul>	<ul style="list-style-type: none"><li>EN71-3</li><li>欧盟法规 (EU) No 10/2011</li><li>US CFR 21 FDA (原料符合性)</li></ul>			

## THERMOLAST® K | 热塑宝 K

<b>Series 系列</b>	The FC/AP series is your material solution for everyday life applications with regulatory requirements. It is available in natural or translucent colors. The series is characterized by its PP adhesion.
<b>FC/AP</b>	FC/AP 系列是日常生活应用领域理想的材料解决方案, 符合相关法律要求, 具有 PP 包胶性。可选自然色泽或半透明状态。

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
TFxBNA TFxBTL		30 – 90 Shore A 30 – 90 Shore A	Natural 自然色 Translucent 半透明	PP
<b>Typical Applications</b>	<b>典型应用</b>			
<ul style="list-style-type: none"><li>Function and design elements</li><li>Grip applications</li><li>Household articles</li><li>Packaging</li><li>Razors</li><li>Seals for housings</li><li>Toothbrushes</li><li>Toys</li></ul>	<ul style="list-style-type: none"><li>功能和设计要素</li><li>把手应用</li><li>家居用品</li><li>包装</li><li>剃须刀</li><li>机壳密封件</li><li>牙刷</li><li>玩具</li></ul>			
<b>Material Advantages</b>	<b>材料属性</b>			
<ul style="list-style-type: none"><li>Adhesion to PP</li><li>Colorable</li><li>Halogen-free (according to IEC 61249-2-21)</li><li>In-process recycling possible</li><li>Non-sticky surface</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>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>非粘性表面</li><li>优异的流动性</li><li>优异的机械特性</li></ul>			
<b>Regulations / Approvals</b>	<b>法规 / 批准</b>			
<ul style="list-style-type: none"><li>EN71-3</li><li>Regulation (EU) No 10/2011</li><li>US FDA CFR 21</li></ul>	<ul style="list-style-type: none"><li>EN71-3</li><li>欧盟法规 (EU) No 10/2011</li><li>US FDA CFR 21</li></ul>			

## THERMOLAST® K | 热塑宝 K

**Series 系列**  
**FC/CS**

The FC/CS series is your material solution for everyday life applications with regulatory requirements. The translucent materials can be colored in many different ways. The series is characterized by its adhesion to PP and PE.

FC/CS 系列是日常生活应用领域理想的材料解决方案，符合相关法律要求，具有对 PP 和 PE 的包胶性，半透明状态可通过多种方式着色。

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
TFxSTE		30 – 80 Shore A		Translucent	半透明	PE, PP	
Typical Applications		典型应用					
<ul style="list-style-type: none"><li>Closures</li><li>Flexible Connections</li><li>Food bumper</li><li>Household articles</li><li>Membranes</li><li>Packaging (for food and care products)</li><li>Seals for housings</li><li>Valves</li></ul>		<ul style="list-style-type: none"><li>封口</li><li>柔性连接器</li><li>食物固定器</li><li>家居用品</li><li>薄膜</li><li>包装（用于食品和护理产品）</li><li>机壳密封件</li><li>阀门</li></ul>					
Material Advantages		材料属性					
<ul style="list-style-type: none"><li>Adhesion to PP</li><li>Colorable</li><li>Free from animal ingredients</li><li>Halogen-free (according to IEC 61249-2-21)</li><li>Hysteresis</li><li>In-process recycling possible</li><li>Optimized compression set</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>不含动物性成分</li><li>不含卤素（符合 IEC 61249-2-21 标准）</li><li>滞后</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>柔软的表面触感</li></ul>					
Regulations / Approvals		法规 / 批准					
<ul style="list-style-type: none"><li>EN71-3</li><li>Regulation (EU) No 10/2011</li><li>US CFR 21 FDA (raw material conformity)</li></ul>		<ul style="list-style-type: none"><li>EN71-3</li><li>欧盟法规 (EU) No 10/2011</li><li>US CFR 21 FDA (原料符合性)</li></ul>					

## THERMOLAST® K | 热塑宝 K

**Series 系列**  
**FC/ht**

The FC/ht series is your highly transparent material solution for everyday life applications with regulatory requirements. The series is characterized by its PP adhesion. The highly transparent materials can be colored in many different ways.

FC/ht 系列是日常生活应用领域理想的高透明度材料解决方案，符合相关法律要求，具有 PP 包胶性，高度透明的状态可通过多种方式着色。

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
TFxFHT		30 – 80 Shore A		Transparent	透明	PP	
Typical Applications		典型应用					
<ul style="list-style-type: none"><li>Function and design elements</li><li>Grip applications</li><li>Household articles</li><li>Packaging (for food and care products)</li><li>Razors</li><li>Seals for housings</li><li>Toothbrushes</li><li>Toys</li></ul>		<ul style="list-style-type: none"><li>功能和设计要素</li><li>把手应用</li><li>家居用品</li><li>包装（用于食品和护理产品）</li><li>剃须刀</li><li>机壳密封件</li><li>牙刷</li><li>玩具</li></ul>					
Material Advantages		材料属性					
<ul style="list-style-type: none"><li>Adhesion to PP</li><li>Colorable, also in effect colors</li><li>Free from animal ingredients</li><li>Halogen-free (according to IEC 61249-2-21)</li><li>In-process recycling possible</li><li>Low density</li><li>Soft touch surface</li><li>Transparency</li></ul>		<ul style="list-style-type: none"><li>包胶PP</li><li>可染色，也可做特殊效果颜色</li><li>不含动物性成分</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>低密度</li><li>柔软的表面触感</li><li>透明</li></ul>					
Regulations / Approvals		法规 / 批准					
<ul style="list-style-type: none"><li>EN71-3</li><li>Regulation (EU) No 10/2011</li><li>US CFR 21 FDA (raw material conformity)</li></ul>		<ul style="list-style-type: none"><li>EN71-3</li><li>欧盟法规 (EU) No 10/2011</li><li>US CFR 21 FDA (原料符合性)</li></ul>					

## THERMOLAST® K | 热塑宝 K

**Series 系列**  
**FC/S**

The FC/S series is your super-soft material solution for everyday life applications with regulatory requirements. The compounds are available in natural colors, translucent or transparent. All variants can be colored in many different ways.

FC/S 系列是日常生活应用领域理想的超软材料解决方案，符合相关法律要求，可选自然色、半透明或透明状态，均可通过多种方式着色。

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
TFxSNT TFxSTL TFxSTT		70 – 80 VLRH 50 – 80 VLRH 70 – 85 VLRH		Natural Translucent Transparent	自然色 半透明 透明	PP	
Typical Applications		典型应用					
<ul style="list-style-type: none"><li>Baits</li><li>Cushioning</li><li>Fun articles</li><li>Function and design elements</li><li>Grip applications</li><li>Protectors</li><li>Toys</li></ul>		<ul style="list-style-type: none"><li>钓饵</li><li>缓冲垫</li><li>趣味用品</li><li>功能和设计要素</li><li>把手应用</li><li>防护器</li><li>玩具</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>Optimized flow properties</li><li>Optimized mechanical properties at low hardnesses</li><li>Soft, non-sticky haptic</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>优异的流动性</li><li>低硬度时具有优异的机械特性</li><li>柔软不粘的触感</li></ul>					
Regulations / Approvals		法规 / 批准					
<ul style="list-style-type: none"><li>EN71-3</li><li>Regulation (EU) No 10/2011</li><li>US CFR 21 FDA (raw material conformity)</li></ul>		<ul style="list-style-type: none"><li>EN71-3</li><li>欧盟法规 (EU) No 10/2011</li><li>US CFR 21 FDA (原料符合性)</li></ul>					



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