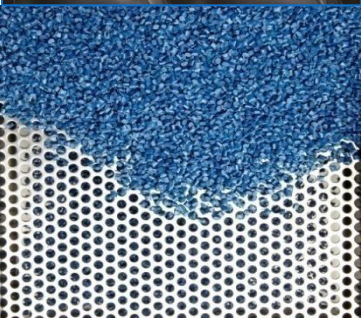


Gep1a® 纳米复合超耐磨塑料

GEPLA® NANOCOMPOSITE ULTRA-WEAR-RESISTANT PLASTIC

Create a global well-known high-performance plastic brand

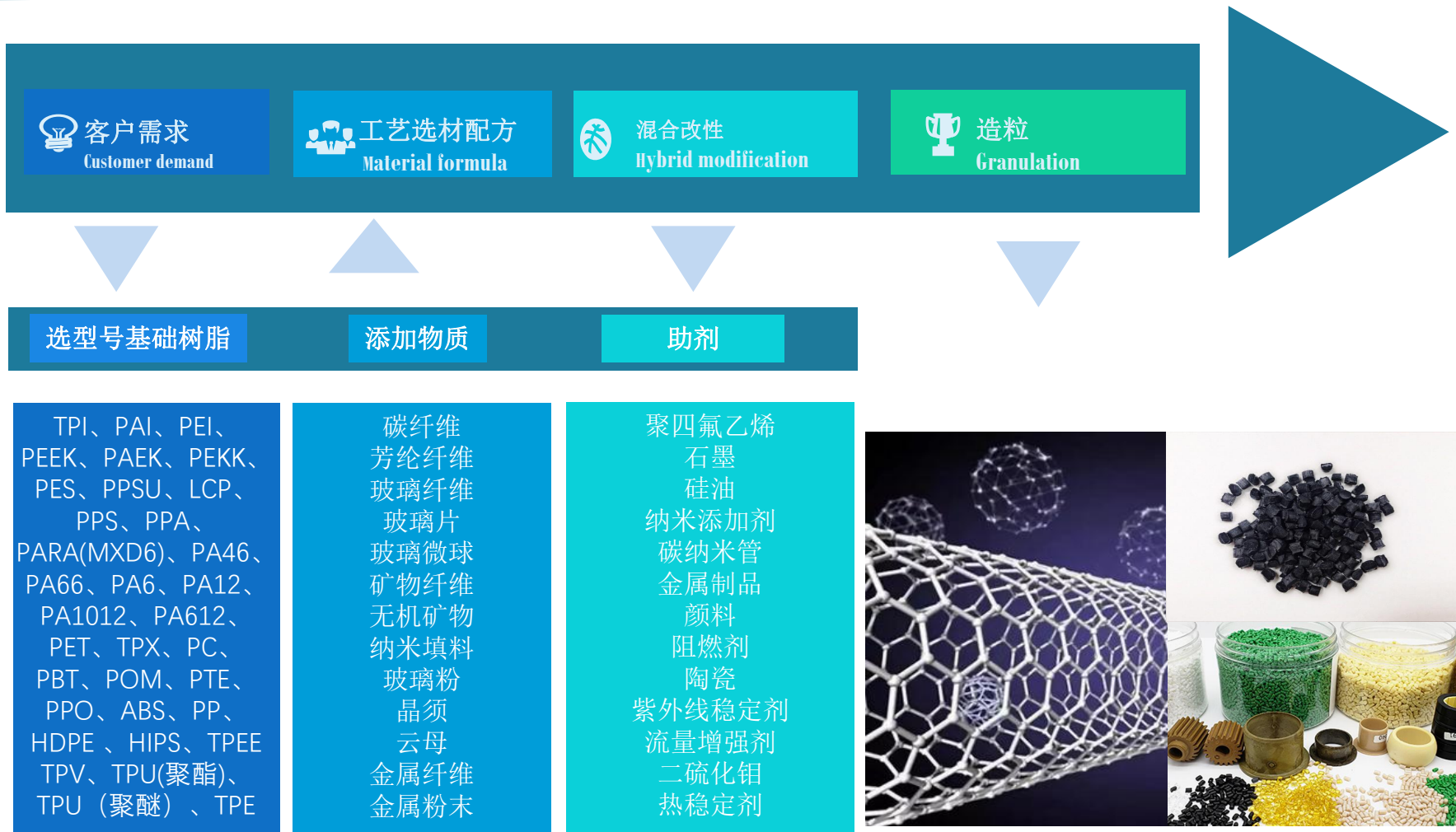
新孚达(NFD) 能做什么? *What can Synfluid (NFD) do?*



- ▶ NFD®是将普通塑料产品通过先进的塑料混炼改性技术，使之成为具有**特殊功能性的材料**（超高强度、超高模量、自润滑高耐磨、导电导热、电子屏蔽（EMI）、高低比重、耐高温、激光直接成型、磁可探测、阻燃、抗UV、免喷涂塑料等）
NFD® is a modification of ordinary plastic products through advanced plastic mixing technology, making it a material with special functions (such as: ultra-high strength, ultra-high modulus, self-lubricating and high wear resistance, electrical and thermal conductivity, electronic shielding (EMI), high and low specific gravity, high temperature resistance, laser direct molding, magnetic detection, flame retardant)
- ▶ 我们专注于**高技术含量**的市场和项目
We focus on high-tech markets and projects
- ▶ 我们提供**定制化**和最具性价比的解决方案，全方位的**技术支持** We provide customized and most cost-effective solutions with comprehensive technical support
- ▶ 我们提供**多功能集成化**的材料，免去了您产品选材和加工过程的繁琐 We provide multifunctional integrated materials, eliminating the tediousness of your product selection and processing
- ▶ 迅捷的新产品**开发速度**和**样品准备速度** Rapid new product development speed and sample preparation speed
- ▶ 没有严格的MOQ限制，**按需定制** No strict MOQ restrictions, customized as required

耐磨材料的种类及添加物

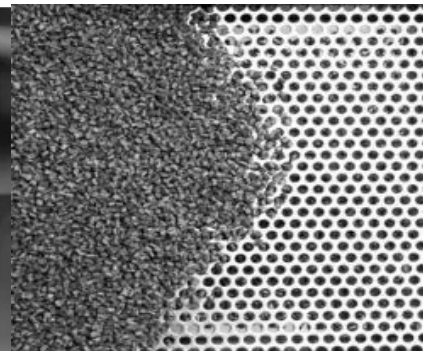
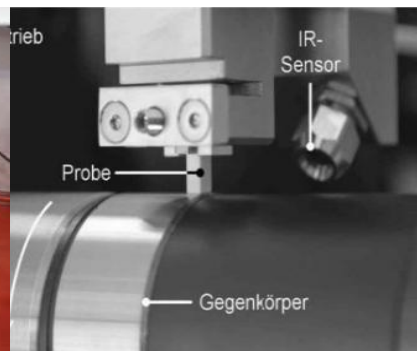
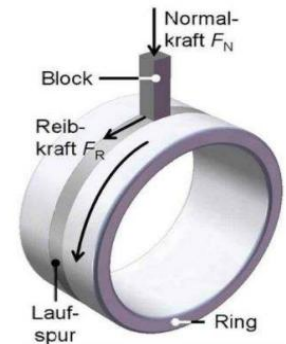
Types of wear-resistant materials and additives



- ▶ 60多种基材 More than 60 substrates
- ▶ 4000个成熟配方 4000 mature formulas
- ▶ 超强碳纤维增强塑料 Super strong carbon fiber plastic
- ▶ 超耐磨纳米复合塑料 Ultra-wearable nanoplastics
- ▶ 特殊改性塑料个性化定制 Special modified plastic customization

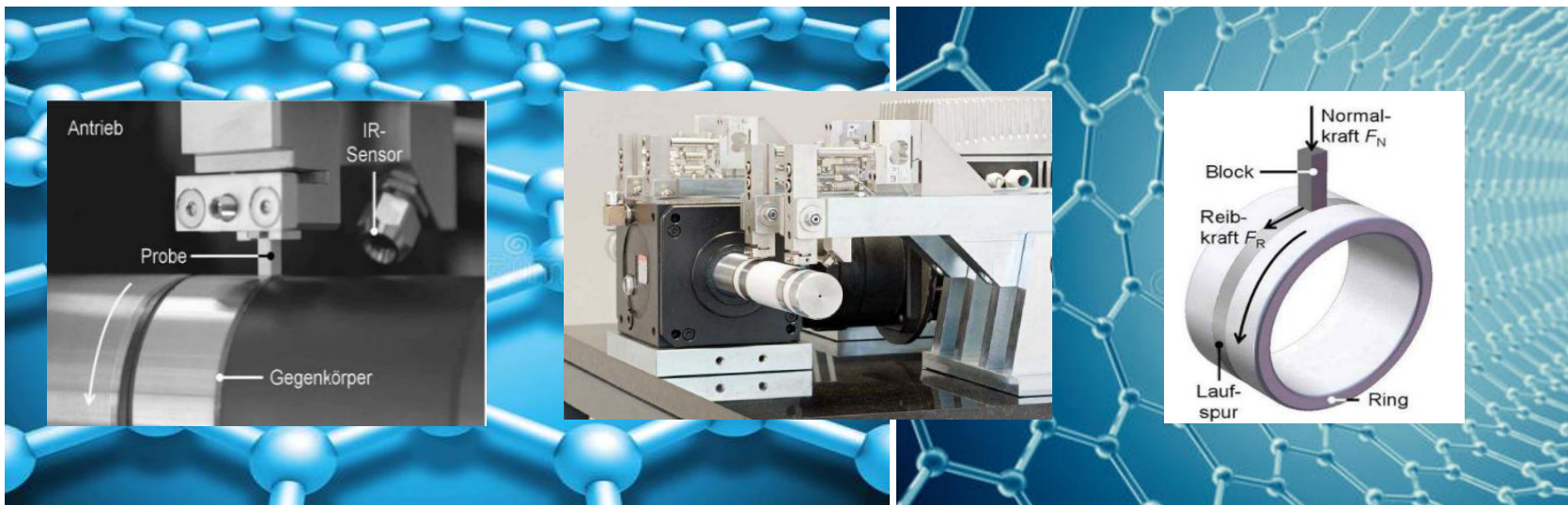
全球品种最全、型号最多的塑料改性工厂之一

One of the world's most complete and most diverse plastic modification plants

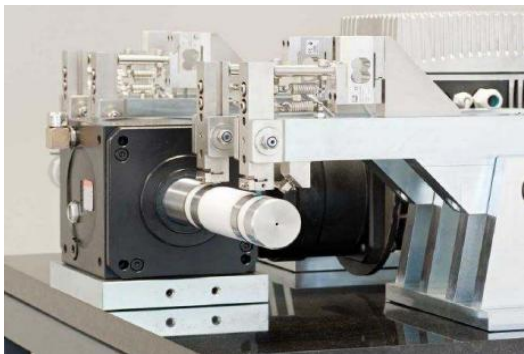


自润滑超耐磨纳米交联塑料

Self-lubricating super wear-resistant nano-crosslinked plastic

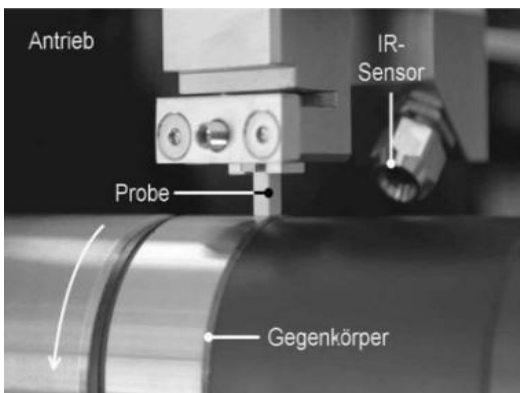


Create a global well-known high-performance plastic brand



性能同比提升100倍！

NFD采用最新共混反应技术，引入有机纳米和无机纳米，在高温状态下交联复合，使塑料的耐磨性能实现质的突破，通过纳米分子与塑料交联聚合，使得塑料与纳米材料界面相容性得到极大提升，这种融为一体不仅使材料机械性能大幅提高，也赋予材料卓越的耐磨性能，为材料的可靠性提供安全保证。



例如：NFD纳米交联塑料技术，成功使PA66耐磨性提高近100倍。与加入PTFE、石墨、二硫化钼、硅油（硅酮）等传统滑润剂相比，纳米改性PA66具有更突出的耐磨性能。

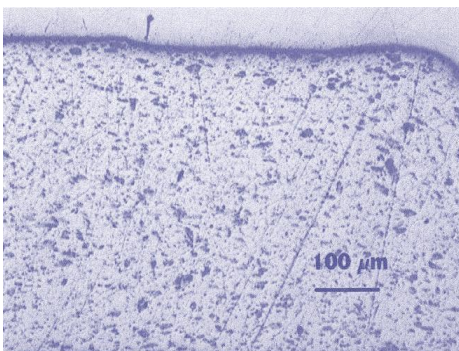


Gepla® X3000 系列

广泛的树脂和润滑剂产品组合可为各个行业提供磨损和摩擦解决方案 Extensive resin and lubricant product portfolio provides wear and friction solutions for various industries 获得专利的完全相容的合金润滑系统，提供无卤解决方案。 Patented, fully compatibilized alloy lubrication system providing non-halogenated solutions.

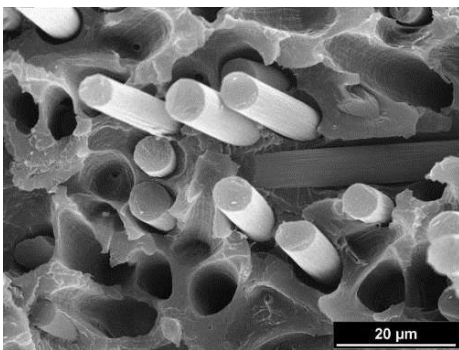
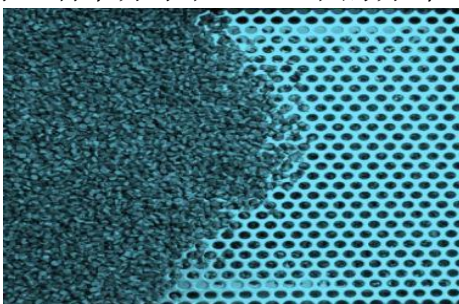
- 传统的内部润滑化合物 Traditional internally lubricated compounds
- 广泛的解决方案： Broad range of solutions:
 - 28种树脂 28 resins
 - + 7个润滑剂包 7 lubricant packages
 - 多种填充和增强包装 Multiple filler & reinforcement packages
- **纳米交联复合润滑系统** Nano-crosslinked composite lubrication system
- Available in TPI, PEEK, PAEK, PEI, PPSU, PES, PPE, PPS, PPA, PARA (MXD6), PA66, PA6, PA12, PA1010, PA612, PA610, PC, PBT, POM, PP, ABS, HIPS, HDPE, PTE, TPU, TPE, TPV, TPEE
- Improved impact over PTFE filled materials
- Lower mold deposits
- Excellent surface finish & colorability
- Lower S.G. vs. PTFE filled materials

纳米塑料与传统配方材料--摩擦系数对比

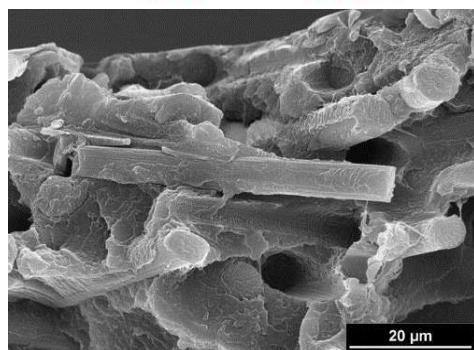


纳米分子分散控制

例：纳米分子在PA66中的分布均匀

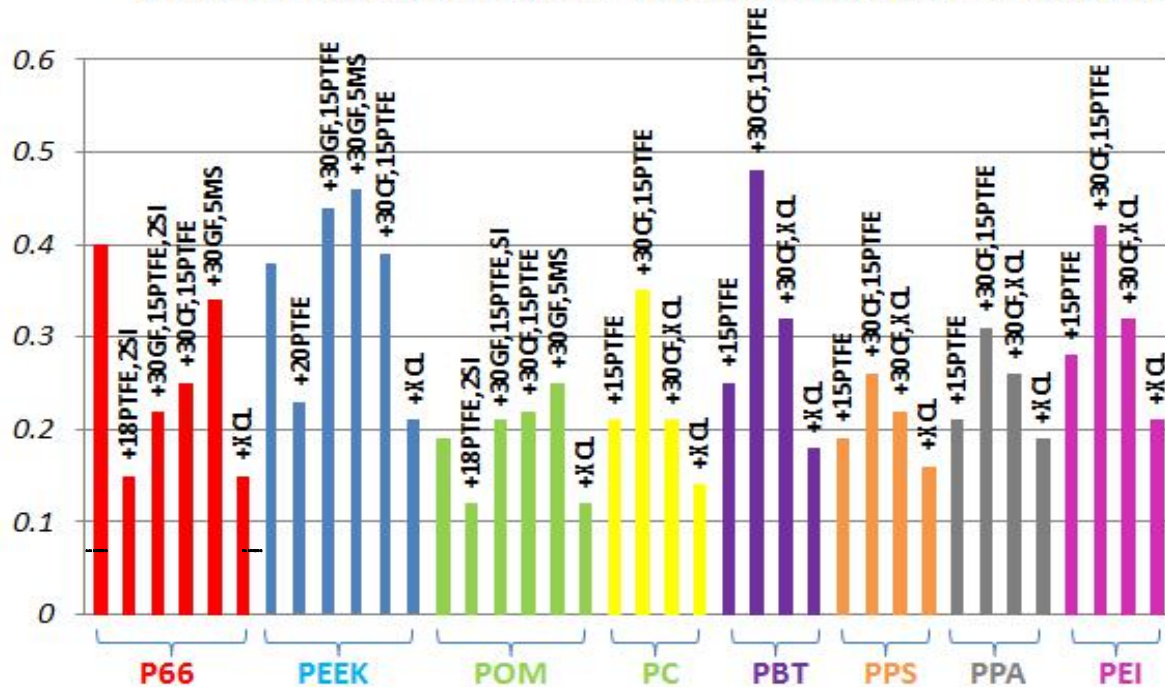


含30%碳纤维的PA66材料（非纳米改性）的断裂面

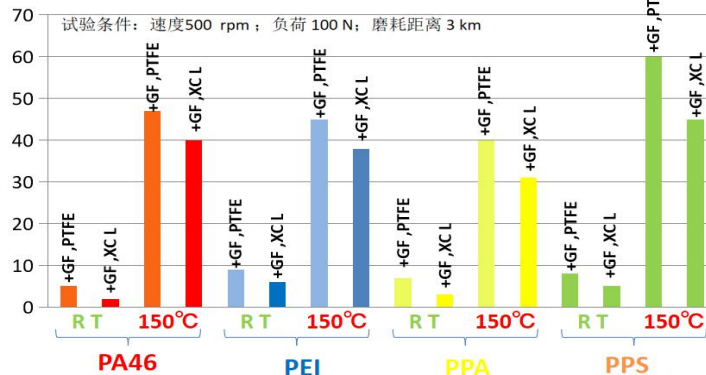


含30%碳纤维的PA66材料（纳米改性）的断裂面

各类聚合物纳米复合技术与传统耐磨助剂摩擦系数对比

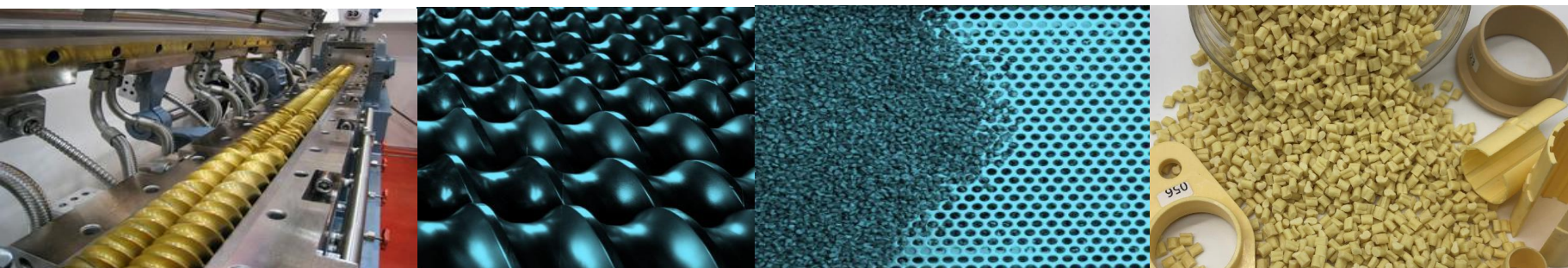


磨耗量对比

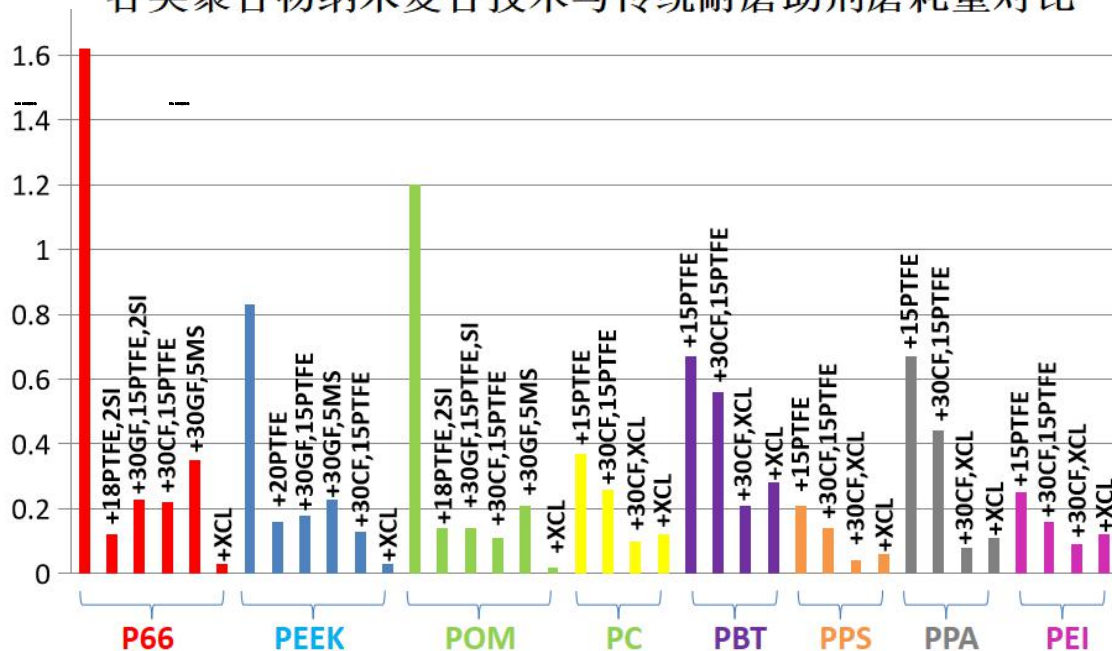
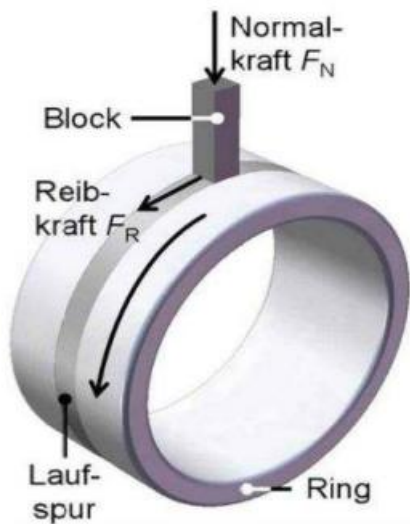


纳米塑料与传统配方材料-- 磨损值对比

创新的共混工艺设计和生产经验、先进的设备



各类聚合物纳米复合技术与传统耐磨助剂磨耗量对比



Gepla® 产品线:

摩擦/润滑改性

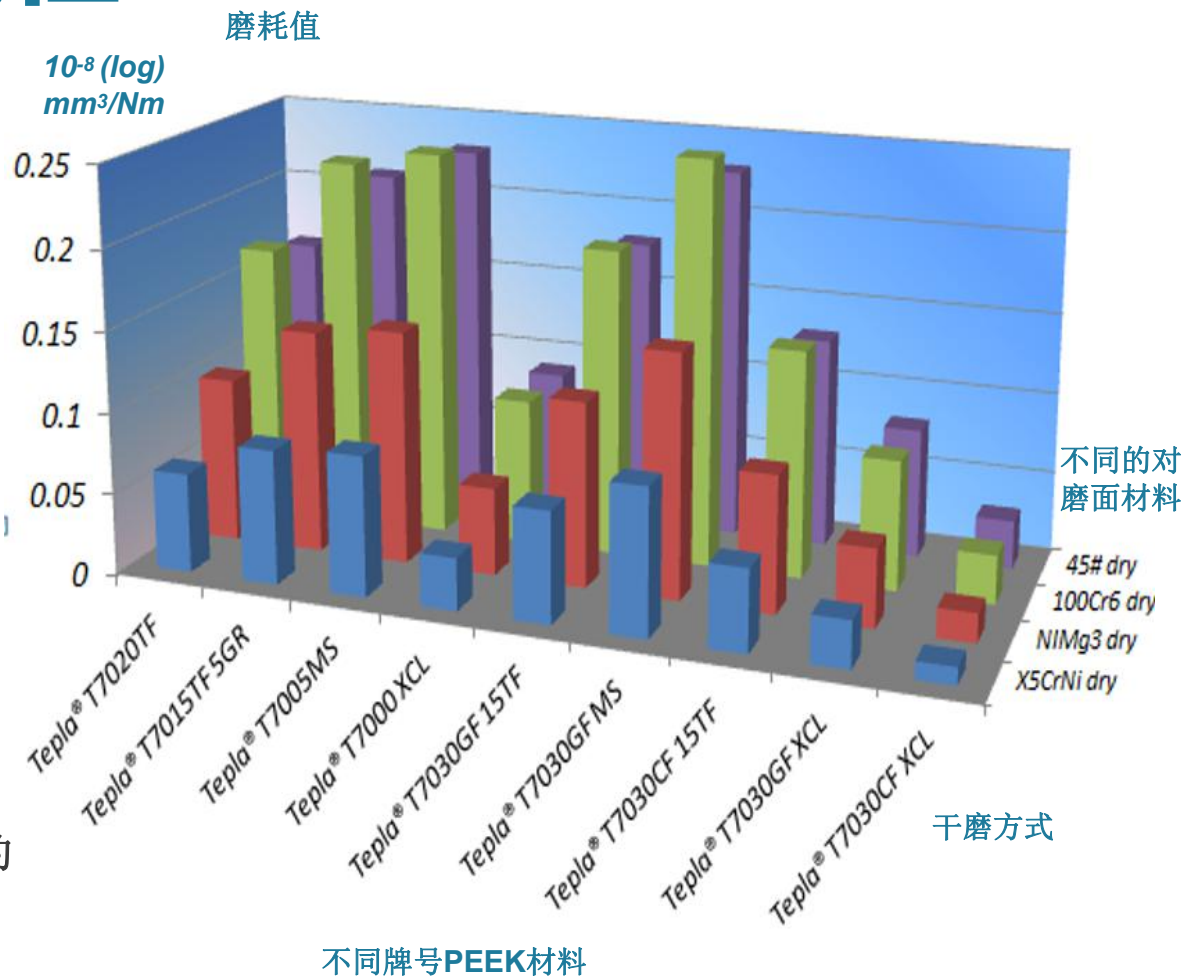
磨损率的控制

Gepla®-纳米改性材料

典型举例：不同耐磨等级的
PEEK材料。根据具体工况：

- ✓ 摩擦环境：水、空气、其他；
- ✓ 对磨材料：钢铁，有色合金，
非金属(塑料、其他)；
- ✓ 特殊要求：低收缩、无PTFE或
Silicon、高强度等；

新孚达NFD能提供宽广性能范围的
解决方案。



核心技术--超耐磨纳米塑料 Ultra-wearable nanoplastics

比金属更耐磨！干态条件测试中比铜轴承好**10**倍左右！

It is more wear-resistant than metal, and is more than 10 times better than copper bearings in dry conditions!

纳米技术可使普通塑料耐磨性提升**50-100**倍！

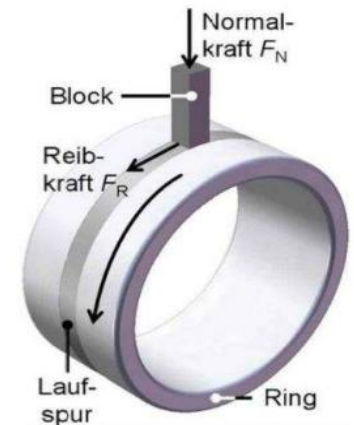
Nanotechnology can increase the wear resistance of ordinary plastic by 50-100 times!

纳米复合塑料界面结合优，具有强度高特点 Nano-composite plastic has excellent interface bonding and high strength

纳米超耐磨塑料自润滑性好 Nano super wear-resistant plastic has good self-lubrici

纳米超耐磨塑料可满足医用级要求，安全可靠 Nano super wear-resistant plastic can meet medical grade requirements, safe and reliable

以上轴承数据由某合作客户实际测试后提供，仅供参考！



Create a global well-known high-performance plastic brand

Geppla® 应用行业及成功案例

交通



航空



医疗



工业4.0



运动器材



机械设备



环保



电子电器



新能源



环保



机器人



玩具



Gepla® 汽车领域的应用



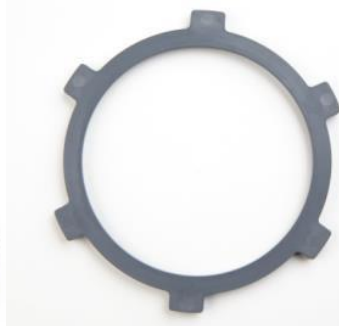
各种泵类



减重支架、紧固件



齿轮类



止推垫圈类



轴承类



天窗机械组



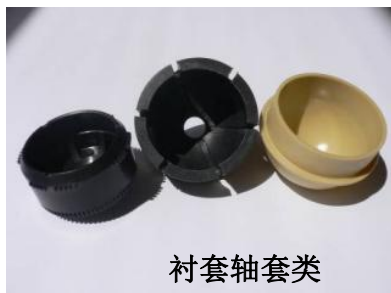
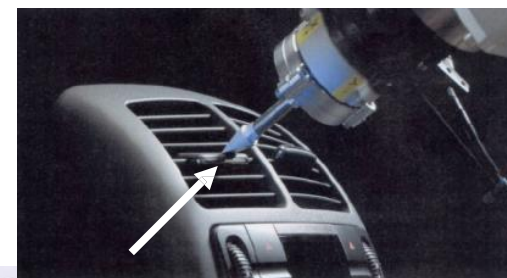
车顶部件



紧固件涂层



安全系统部件涂层



衬套轴套类



滑块、致动组



阀门瓣膜类

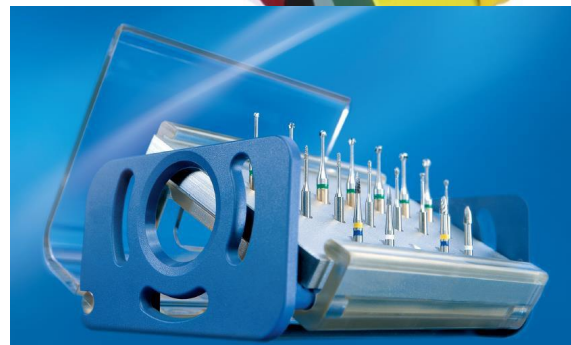


按钮滑钮类

Gepla® 医疗设备、器械领域的应用

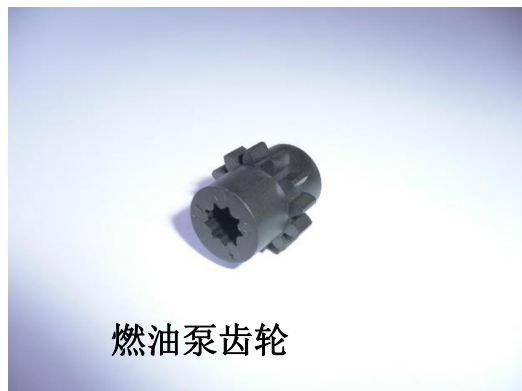


- ▶ 耐反复消毒的器械把手
- ▶ 多彩的耐消毒容器、外壳等
- ▶ 医疗设备的机械组部件
(流体传送、减重等)
- ▶ 其他特殊要求部件 (尺寸、光刻、植入等)



Create a global well-known high-performance plastic brand

Gepla® 航空领域应用



燃油泵齿轮



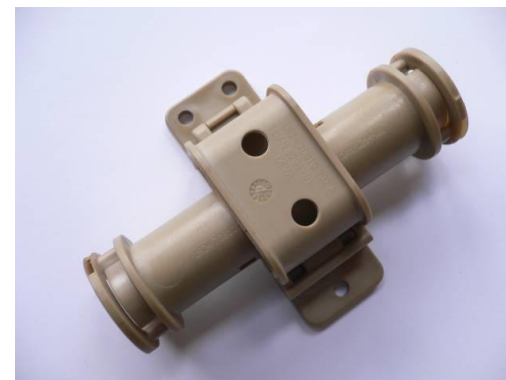
燃料泵部件



紧固件



减重结构件



线束支架

Gepla® 在工业机械、精密设备领域的应用



各种轴承部件



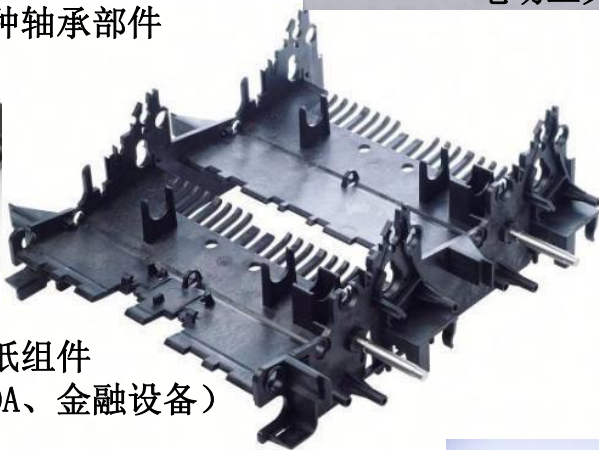
电动工具部件



密封件(石油天然气行业)



纺织机械部件



送纸组件
(OA、金融设备)



光学仪器部件



高性能叶轮



致动齿轮



半成品型材、制件

Gepla® 在食品加工工业的应用



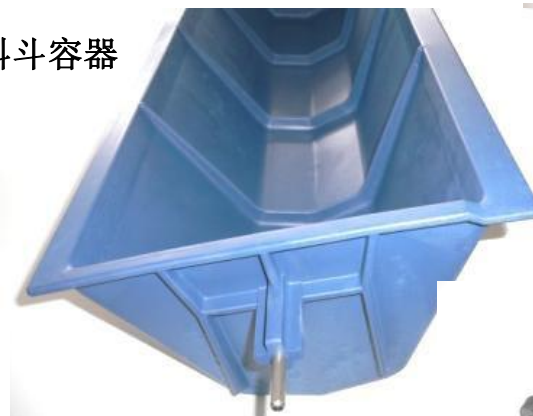
工具类



机械组件



料斗容器

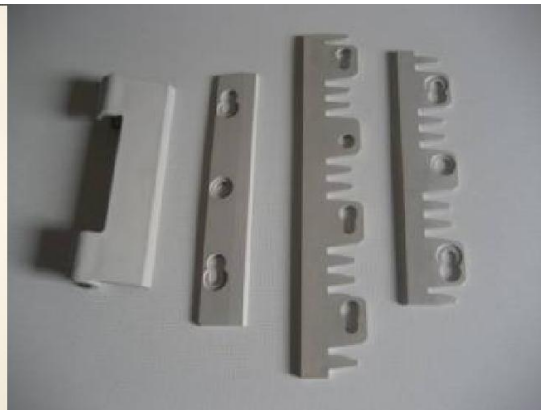


检测设备部件



传送带部件

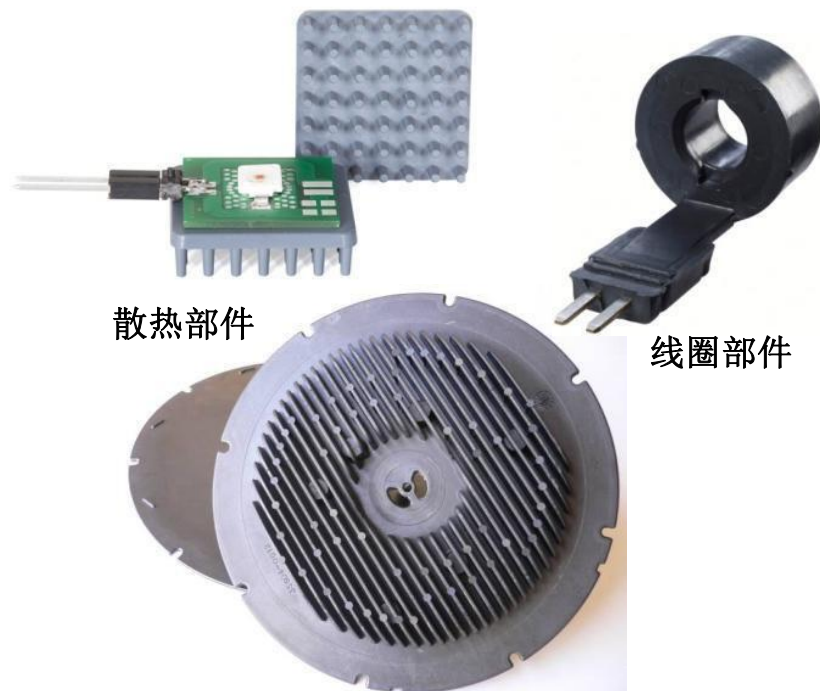
刮板、搅拌桨部件



测温仪部件

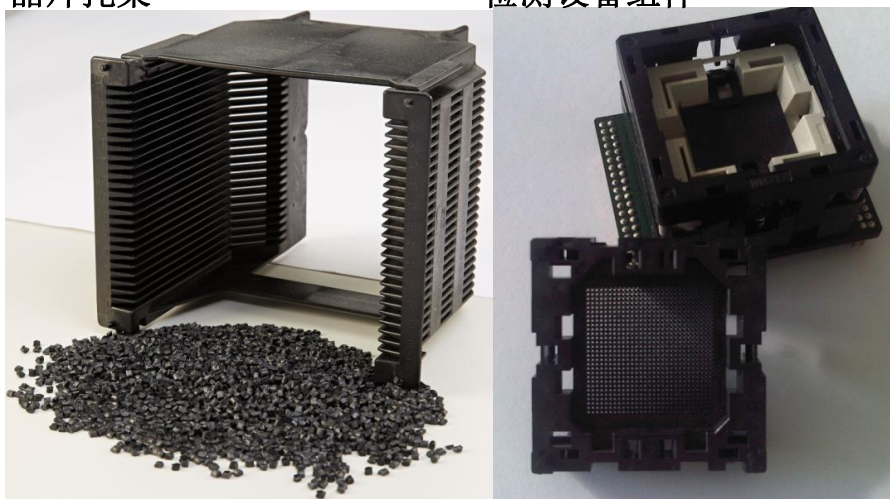


Gepla® 在电子/电器领域的应用



晶片托架

检测设备组件



芯片托盘



Gepla® 在运动休闲领域的应用



Gepla® 满足多种注塑成型的工艺要求



多部拼接 (硬/硬)
Multi component
hard / hard



多部拼接 (软/硬)
Multi component
hard / soft



外覆-Outsert



嵌件-Insert



胰岛素笔刻度盘
Insulin Pen Dial



渔具
Fishing gear



PPAP机器H框架
PPAP Machine H Frame



电池门锁
Battery Latch

Gepla® 注塑成型后的表面处理工艺要求



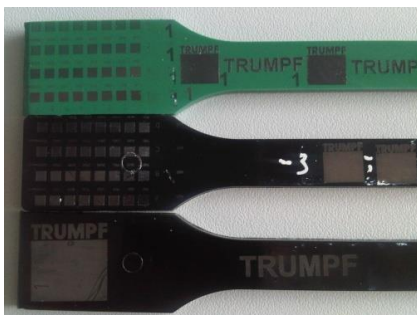
金属化（电镀）
Metallisation
e.g. PEEK



喷涂
Painting
e.g. PPS



着色
Colouring
e.g. PEEK



激光标刻
Laser marking
e.g. PEEK



模内修饰
IMD (in mould decoration)
e.g. PC



模内装配
In-mould assembly

Gepla® -- 材料如您所想、随您所愿！

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www.nfdpla.com



特殊改性的高性能复合材料

ADVANCED COMPOSITS BASED ON SPECIAL MODIFIED

 滑动了解更多

欢迎访问新孚达媒体中心

感谢您访问新孚达复合材料有限公司（NFD）！我们秉承“New Formula Designer”的发展理念，将科研创新与生产应用紧密相连。新孚达专攻特殊改性复合材料，拥有60多种基材，4000多个型号的特殊改性工程塑料成熟配方，这些材料包括结构性增强、导电及电子屏蔽（EMI）、阻燃、润滑改性耐磨、长（短）碳纤维增强、长（短）玻璃纤维增强、

Geppla®个性化材料定制方案专家



就是爱挑战!

感谢您的聆听!