

# Fascinating Products providing the world with high-quality

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# **Our Global Network**

**EUROPE** area PLALLOY MTD. B.V China area •SHANGHAI MITSU PLASTIC COMPOUNDS LTD •TIANJIN SANKYO PLASTICS CO., LTD •NANTONG NS ADVANTECH CO., LTS. •RICHAO SUPER ENGINEERING PLASTICS (DALIAN) Techno-UMG Europe GmbH •INABATA INDUSTRY & TRADE (DALIAN F.T.Z.) CO., LTD. Germany •GUANGZHOU SANKYO PLASTICS CO., LTD. •DONGGUAN DAINICHI CHEMICAL MFY CO., LTD. Techno-UMG Co., Ltd. •SANYO-IK COLOR (DG) LTD. •Tokyo Head Office Nagoya Office Techno-UMG •Osaka Office Guangzhou Co., Ltd Yokkaichi Plant/R&D Center Otake Plant Ube Plant/R&D Center Techno-UMG Shanghai Co., Ltd. Philippines area •IK PLASTIC COMPOUND PHILS. INC Vietnam area -Techno-UMG Hong Kong Co., Ltd. •SIK VIETNAM CO., LTD •DAINICHI COLOR VIETNAM Techno-UMG ASIA Co., Ltd. Thailand area •DAINICHI COLOR (THAILAND) LTD. •SIK (THAILAND) LTD. •MEP HEXA THAILAND LTD. •SIAM OKAYA CHEMICAL CO., LTD. •THALMATTO NS CO I TD Malaysia, Indonesia area •NIPPON PIGMENT (M) SDN.BHD. SHAH ALAM PLANT

- O Techno-UMG and Sales Offices
- Overseas Compounding Factories
- Plants/R&D Centers

License Manufactures

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•NIPPON PIGMENT (M) SDN.BHD. PENANG PLANT

### **Otake Plant**

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•P.T. NIPPISUN INDONESIA

•PT-SIK INDONESIA

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### USA 🚺

### Techno-UMG America, Inc.

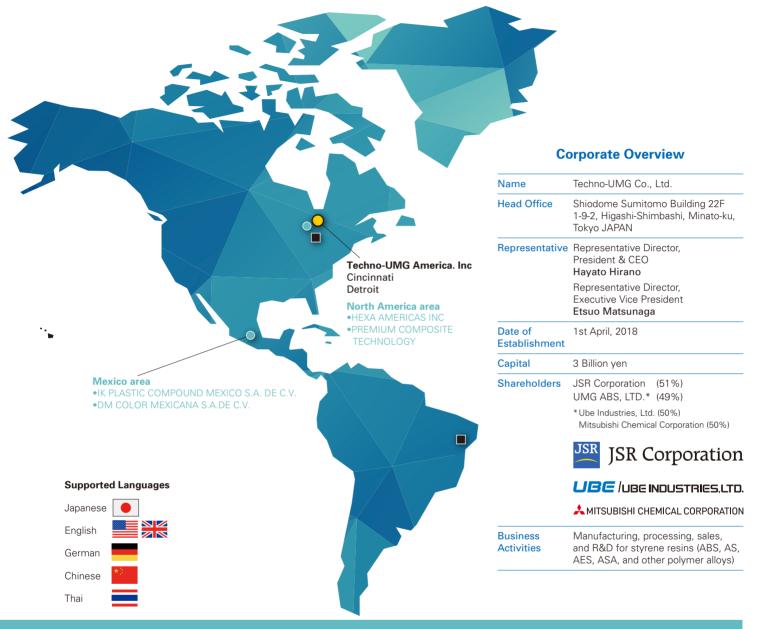
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At Techno-UMG we want our customers to trust us. For this very reason we strive to deliver the best solutions. As one of Japan's leading manufacturers, we boast a second-to-none extensive lineup of products owing to our highquality materials and cutting-edge technology—and our products are available worldwide through our global subsidiary network. We have a supply-chain management system in place at our three domestic production plants and overseas compounding factories to ensure locally manufactured products are delivered with the same quality assurance and in a timely fashion to satisfy the needs of our customers.





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### **Our Product Development Concept:**

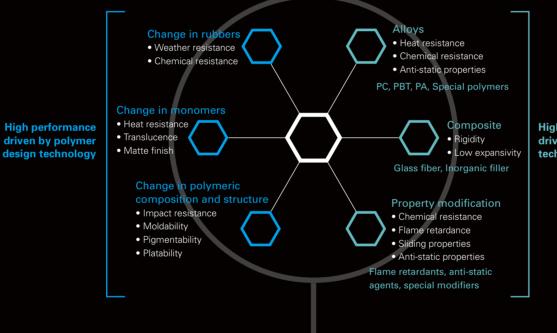
# Creating added value with our polymer design and compounding technology

We are a global company that manufactures and sells ABS and ABS alloy resins.

ABS resins are made of three polymers—acrylonitrile (A), butadiene (B), and styrene (S). ABS is a highly versatile material and changing the proportions of its compounds gives it different properties.

At Techno-UMG we draw upon our superior polymer design and compounding technology to create the added value lacking in existing ABS resins.

Leveraging the synthetic rubber and modifier technologies of our parent company, as well as their stable supply capabilities, we provide special grade, high-performance grade, and high-added-value grade products. Our products have been rated favorably by our customers the world over.



High performance driven by compounding technology

### Creating products based on the concepts of "environment" and "comfort" to meet diverse customer needs

Based on the key concepts of "environment" and "comfort," we are attentive to market trends and customer needs and strive to create unique, distinguished, and value-added ABS products for the global marketplace. One such product is our widely acclaimed **HUSHLLOY**<sup>®</sup> series, which greatly reduces plastic squeaking or creaking noises.

\*Owing to the growing popularity of quiet hybrid and electric vehicles, the elimination of annoying squeaking sounds in car interiors is becoming increasingly important. HUSHLLOY<sup>®</sup> dramatically reduces the squeaks and creaks of plastic to create a more pleasant driving experience.

### **Anti-Squeak**

We developed this material with the aim of reducing the squeaking noises emitted by inter-fitting plastic components. The use of **HUSHLLOY**<sup>®</sup> eliminates the need for grease or felt, thereby lowering manufacturing costs and mitigating the risk of mistakes that can occur during assembly. The effectiveness of **HUSHLLOY**<sup>®</sup> is long lasting because squeaking noises are reduced thanks to a combination of special polymers, not additives.

### Low Rattle

In addition to eliminating squeaking noises, we also developed **HUSHLLOY**<sup>®</sup> to prevent rattling sounds. **HUSHLLOY**<sup>®</sup> is designed to not only change the tone of rattling sounds by reducing acoustic pressure and creating a lower frequency, it also more quickly attenuates those noises. We are continually expanding our lineup of **HUSHLLOY**<sup>®</sup> products in an effort to deliver solutions that meet the diverse needs of our customers.



Door Trim

Inner Door Handles

Cup Holder

**Drive Handle** 

Console

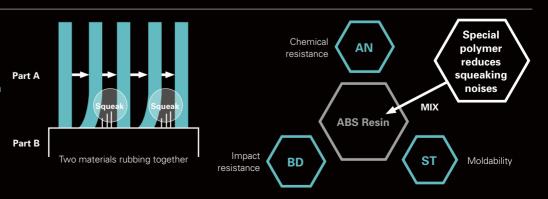


# HUSHLLOY<sup>®</sup>: Anti-Squeak Material

The interlocking components of plastic parts often rub against each other to create an annoying squeaking sound. Usually steps are taken to prevent these noises by applying grease or nonwoven fabric such as felt to the suspect areas, but this requires manpower and money and also carries the risk of mistakes during the assembly process. The use of **HUSHLLOY**<sup>®</sup> eliminates these steps, reduces the cost of using grease or nonwoven fabric, and lowers processing costs associated with their application and testing. Unlike grease or felt, the effectiveness of which deteriorates over time, **HUSHLLOY**<sup>®</sup> will remain effective for a very long time.

### HUSHLLOY<sup>®</sup> Design Concept

Squeaking sounds are mainly caused by the frictional vibration of two materials rubbing together. **HUSHLLOY®** prevents the stick-slip phenomenon that can occur between two materials and reduces frictional vibration thanks to a special styrene polymer contained in the ABS resin. Unlike other additive-type materials, its effectiveness is long lasting.



### Vivid Color × Design Free

Leveraging our proprietary polymer technology honed over many years of global development and supply of ASA (S210B), we developed a highly Colorable ASA alloy material for paintless applications. Despite having no paint, this product reproduces depth and vividness closely resembling paint for intricate applications and shapes. The elimination of the painting process contributes to lower costs overall and helps reduce environmental impact.

### Wide Range of Plating Conditions

Harnessing our proprietary polymer technology honed over many years of global development and supply of plated ABS, we developed PC/ABS and heat-resistant ABS materials capable of standing up to an wide range of production conditions (molding conditions and etching temperature/duration conditions) for an extremely wide range of finished products. These materials maximize productivity during the production process and also help reduce environmental impacts because of improved plating yields.

Radiator Grill

Indicator

Shift Lever

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Ventilator

Various Switches

Door Mirror Cover

Glove Box

DIALAC\* Design capabilities
 PMMA
 PC
 Weatherability

olorability Scratch durability

Impact resistance

Adhesion Strength (depending on etching time)

Spoiler

Outer Door Handle

PLATZON (TC-45M)
 PC/ABS
Thermal cycle durability

Pillar

Consistent adhesive strength (across a wide range of molding conditions)

Heat resistance

## Vibrant colors and versatile design capabilities

### "DIALAC®" (ASA/PMMA, ASA)

- Vivid colorability thanks to unique polymerization.
- Great mar resistance via PMMA alloy.
- Easy moldability provides higher design flexibility than competitive materials (PMMA, PC/ASA).

## Consistent platability under various production conditions

### "PLATZON" (PC/ABS, ABS)

• Super High thermal cycle durability. (90~110°C)

Moldability

- Reduces processing costs—platable under various etching conditions.
- Increases production rates via plating process flexibility.
- The only PC/ABS product on the market, specifically developed for exceptional plating adhesion and processing flexibility.

