


Application Development Center EMS-GRIVORY Answer to Technical Inquiry No.: 2019-0585		
Author:	Zane Zhang	Date: 2019/09/19
To:	Gabriele Castaldi	
Company:	Tokai Rika	
Country:	Japan (JP)	
Material:	TR XE4139	
Application:	Car Interiors Shift Lever	

Problem Description / Target of the Customer:

JP Tiers and OEM did not apply yet Grilamid TR materials for car interiors for car manufactured in JP. Dimension stability, scratch resistance and costs are the most common issues raised vs PC/ABS coated.

Aiming at a promotion of Grilamid TR to JP OEMs, especially Piano Black TR XE4139, a collection of successful stories at UBGS is required as for attached format (slide 13-18)

Result / Solution / Proposal:

The new format file please refer to the attachment. The PPT format has been sent by email.

Grilamid TR in Automotive

Garnish Door Trim - HCAT



Material

- Grilamid TR 90 UV
Black 9231
- High-gloss paint free
- Good chemical resistance
- Excellent surface quality

OEM: HCAT

Tier: HCAT

Region: SEA

Grilamid TR in Automotive

Car Key - M-Fisher Tech

Material

- Grilamid TR 30 Natural
- Good impact performance
- Good chemical resistance
- Stress cracking resistance



OEM: Volvo
Tier: M-Fisher Tech
Region: SEA

Grilamid TR in Automotive

Protector Comp - NYC

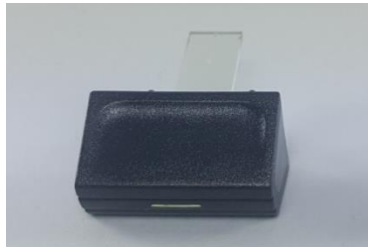
Material

- Grilamid TR XE 4139
Black 9231
- Non-painting solution
- Good chemical resistance
- Good Scratch resistance

OEM: Honda Motorcycle
Tier: NYC (Thailand)
Region: SEA



Climate Control System - M-Fisher Tech



Material

- Grilamid TR XE 11271
TR XE 4139 Black 9231
- Good impact and surface
- Good scratch resistance
- Good chemical resistant

OEM: Mercedes Benz

Tier: BHTC

Region: SEA

Infotainment Bezel - Raymold



Material

- Grilamid TR XE 4139
Black 9231
- Non-painting solution
- Good chemical resistance
- Deep glossy black

OEM: Opel

Tier: HD Mobis

Region: KR

Grilamid TR in Automotive

Door Garnish - Kais



Material

- Grilamid TR XE 4139
Black 9231
- Both glossy and matt black
by different tool surface
grain
- Good chemical resistance
- Good scratch resistance

OEM: HKMC

Tier: Kais

Region: KR

Top Cover Bezel - Dongkook Industry



Material

- Grilamid TR XE 4139
Black 9231
- Flowability to fill out long path
- Good chemical resistance
- Deep glossy black

OEM: HKMC

Tier: Dongkook Industry

Region: KR

CID Frame - LG Electronics



Material

- Grilamid TR XE 11030
Black 9792
- Excellent sun cream resistance
- Non-painting solution
- Deep glossy black

OEM: BMW

Tier: LG Electronics

Region: KR

Seat Adjustment Button - Zento



Material

- Grilamid TR XE 4139
Black 9231
- Non-painting solution
- Good chemical resistance
- Excellent surface quality

OEM: BYD

Tier: Zento

Region: GCN

Grilamid TR in Automotive

Gearshift Cover - Gearchief



Material

- Grilamid TR90 or TR 30 Blue
- Best impact strength
- Scratch resistance
- Good chemical resistance
- Excellent surface quality

OEM: VW

Tier: Gearchief

Region: GCN

Grilamid TR in Automotive

Filter Cup - Jinda



Material

- Grilamid TR30 Natural
- Excellent transparency
- Oil resistance
- Temperature R. 120C

OEM: Trucks

Tier: M+H, Pinghe, Local Tiers

Region: GCN

Grilamid TR in Automotive

Air Vent Trim - Joyson



Material

- **Grilamid TR XE 4139
Black 9231**
- **Good scratch resistance**
- **Good chemical resistance**
- **Excellent surface quality**

OEM: Daimler

Tier: Joyson

Region: GCN

Engine Start Button - Bitron



Material

- Grilamid TR XE4139
Blue 4150
- High gloss and transparency as crystal
- Good chemical resistance
- Good scratch resistance

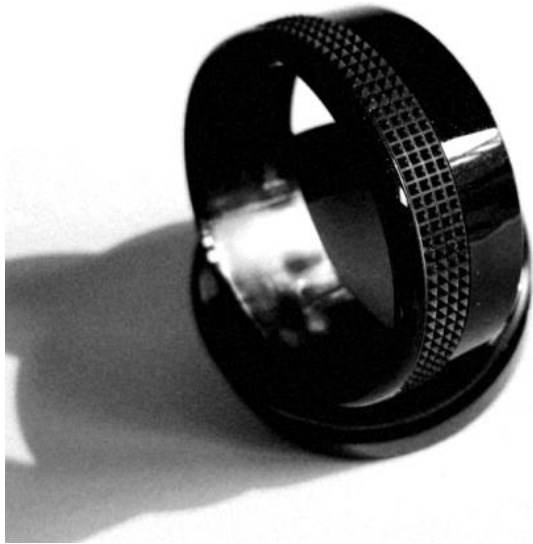
OEM: BBAC

Tier: Bitron

Region: GCN

Grilamid TR in Automotive

Knob Ring - Sunningdale



Material

- Grilamid TR XE 4139
Black 9231
- High gloss piano black
- Good scratch resistance
- Good chemical resistance

OEM: GM / OPEL

Tier: Mobis

Region: GCN

Grilamid TR in Automotive

Rear Mirror Switch - Bitron



Material

- Grilamid TR XE 4139
Black 9231
- High gloss piano black
- Good scratch resistance
- Good chemical resistance

OEM: AUDI

Tier: Bitron

Region: GCN

Sealing Cover & Viewing Window - Yuhuaqi



Material

- Grilamid TR 90 Natural
- High gloss and transparency as crystal
- Good chemical resistance

OEM: CAT / SANY

Tier: SKF

Region: GCN

Grilamid TR in Automotive

Rear Door Window - Huate



Material

- Grilamid TR
- Good impact performance
- Excellent transparency
- Good chemical resistance
- Good scratch resistance

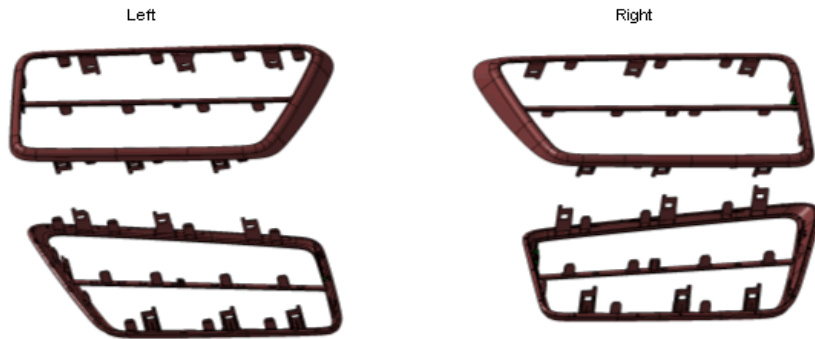
OEM: Qiantu

Tier: Huate

Region: GCN

Grilamid TR in Automotive

Air Vent Frame - YFAI



185*95*30mm

Material

- Grilamid TR XE 4139
Black 9231
- High gloss piano black
- Good scratch resistance
- Good chemical resistance

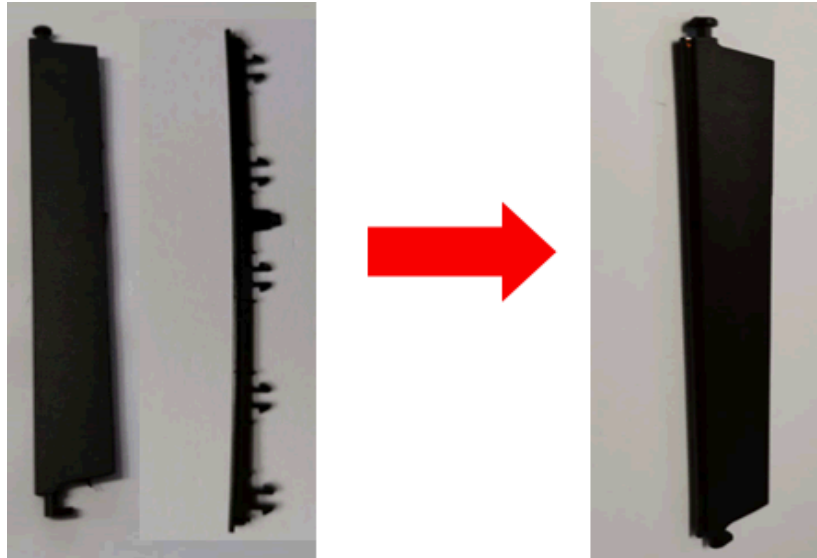
OEM: SAIC-VW

Tier: YFAI

Region: GCN

Grilamid TR in Automotive

Lamellar Bar Trim - YFAI



Material

- Grilamid TR XE 4139
Black 9231
- High gloss piano black
- Good scratch resistance
- Good chemical resistance

OEM: SAIC-VW

Tier: YFAI

Region: GCN

Grilamid TR in Automotive

Air Vent Frame - YFAI



Length>300mm

Material

- Grilamid TR XE 4139
Black 9231
- High gloss piano black
- Good scratch resistance
- Good chemical resistance

OEM: SAIC-VW

Tier: YFAI

Region: GCN

Grilamid TR in Automotive

Video Trim - HUAWEI



Material

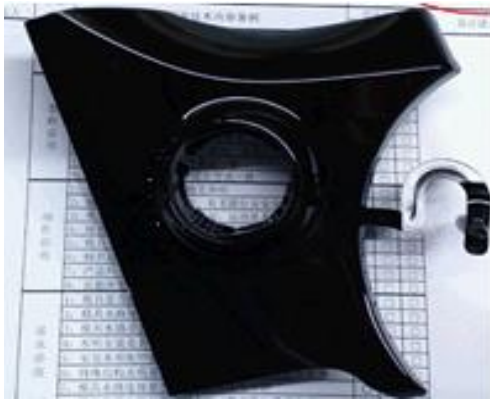
- Grilamid TR XE 4139
Black 9231
- High gloss piano black
- Excellent surface quality
- Good chemical resistance

OEM: OPEL(PSA)

Tier: HUAWEI

Region: GCN

Star-stop Button Cover - HUAWEI



Material

- Grilamid TR XE 4139
Black 9231
- High gloss piano black
- Good scratch resistance
- Good chemical resistance

OEM: OPEL(PSA)

Tier: HUAWEI

Region: GCN

Grilamid TR in Automotive

Display Lens - BHTC



Material

- Grilamid TR XE 4139
Black 9231 + Grey 9533 & 9550
- High gloss piano black
- Good scratch resistance
- Good chemical resistance
- 2k processing

OEM: VW

Tier: BHTC

Region: GCN

Bezel of Register – Howa Kasei



Material

- Grilamid TR XE 4139
Black 9231
- High gloss piano black
- Good scratch resistance
- Good chemical resistance

OEM: TOYOTA

Tier: Howa Kasei

Region: JP

Grilamid TR in Automotive

Gearshift



Material

- Grilamid TR
- High gloss and transparency as crystal
- Good chemical resistance
- Good scratch resistance

OEM:

Tier:

Region:

Grilamid TR in Automotive

Gearshift



Material

- Grilamid TR
- High gloss and transparency as crystal
- Good chemical resistance
- Good scratch resistance

OEM:

Tier:

Region:

Grilamid TR in Automotive

Gearshift



Material

- Grilamid TR
- High gloss piano black
- Excellent surface quality
- Good chemical resistance

OEM:

Tier:

Region:

Grilamid TR in Automotive

Touch pad of Gearshift



Material

- Grilamid TR
- High gloss piano black
- Good scratch resistance
- Good chemical resistance

OEM:

Tier:

Region:

Grilamid TR in Automotive

Panel of Gearshift



Material

- Grilamid TR
- High gloss piano black
- Good scratch resistance
- Good chemical resistance

OEM:

Tier:

Region:

Grilamid TR in Automotive

Buttons



Material

- Grilamid TR
- Excellent surface quality
- Good chemical resistance
- Good scratch resistance

OEM:

Tier:

Region:

Air vent trims



Material

- Grilamid TR
- Non-painting solution
- Good chemical resistance
- Excellent surface quality

OEM:

Tier:

Region:

Grilamid TR in Automotive

Lamella



Material

- Grilamid TR
- Non-painting solution
- Good chemical resistance
- Excellent surface quality

OEM:

Tier:

Region:

Grilamid TR in Automotive

Ash Tray Cover



Material

- Grilamid TR
- High gloss piano black
- Good scratch resistance
- Good chemical resistance

OEM:

Tier:

Region:

Grilamid TR in Automotive

Air Condition Panel



Material

- Grilamid TR
- High gloss piano black
- Good scratch resistance
- Good chemical resistance
- 2k processing

OEM:

Tier:

Region:

Grilamid TR in Automotive

Car Key



Material

- Grilamid TR
- Outstanding transparency and weathering stability
- High flexural fatigue strength
- Good chemical resistance

OEM:

Tier:

Region:

Grilamid TR in Automotive

Car Key



Material

- Grilamid TR
- Outstanding transparency and weathering stability
- High flexural fatigue strength
- Good chemical resistance

OEM:

Tier:

Region:

Grilamid TR in Automotive

Door Handle Button



Material

- Grilamid TR
- High gloss piano black
- Good scratch resistance
- Good chemical resistance

OEM:

Tier:

Region:

Grilamid TR in Automotive

Door Handle Trim



Material

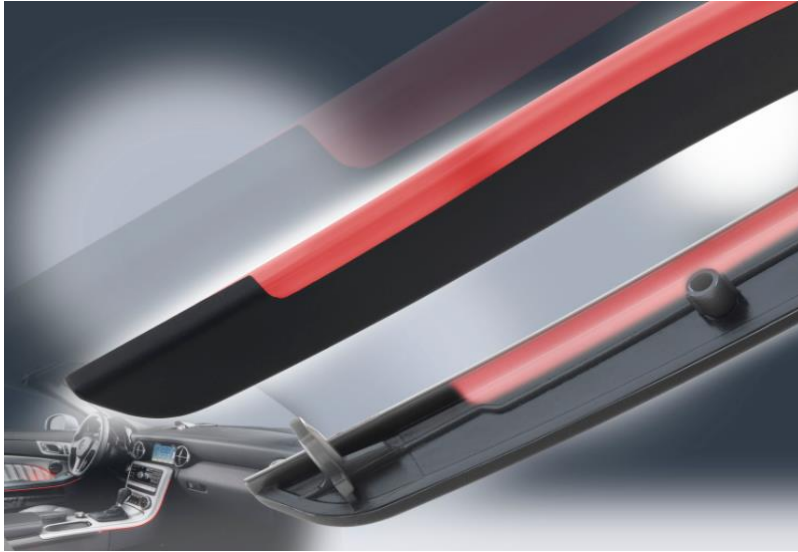
- Grilamid TR
- High gloss piano black
- Good scratch resistance
- Good chemical resistance

OEM:

Tier:

Region:

Grilamid TR in Automotive illuminate Lighting



Material

- Grilamid TR
- Outstanding transparency and weathering stability
- High flexural fatigue strength
- Good chemical resistance

OEM:

Tier:

Region:

Grilamid TR in Automotive illuminate Lighting



Material

- Grilamid TR
- Outstanding transparency and weathering stability
- High flexural fatigue strength
- Good chemical resistance

OEM:

Tier:

Region:

Grilamid TR in Automotive

Driving Wheel Trims



Material

- Grilamid TR
- High gloss piano black
- Good scratch resistance
- Good chemical resistance

OEM:

Tier:

Region:

Grilamid TR in Automotive

Front Grill



Material

- Grilamid TR
- High gloss piano black
- Good impact performance
- Good chemical resistance
- Good weather resistance

OEM:

Tier:

Region:

Grilamid TR in Automotive

Front Grill



Material

- Grilamid TR
- High gloss piano black
- Good impact performance
- Good chemical resistance
- Good weather resistance

OEM:

Tier:

Region:

Grilamid TR in Automotive

Front Grill



Material

- Grilamid TR
- High gloss piano black
- Good impact performance
- Good chemical resistance
- Good weather resistance

OEM: MAZDA

Tier:

Region:

Grilamid TR in Automotive

Japan Lacquer



Material

- Grilamid TR
- Good impact performance
- Good chemical resistance
- Excellent surface quality

OEM: MAZDA

Tier:

Region:

Grilamid TR in Automotive

Center Louver Bezel



Material

- Grilamid TR
- High gloss piano black
- Good scratch resistance
- Good chemical resistance

OEM: MAZDA

Tier:

Region:

Grilamid TR in Automotive

Rear Quarter Panel



Material

- Grilamid TR
- High gloss piano black
- Good impact performance
- Good chemical resistance
- Good weather resistance

OEM: MAZDA

Tier:

Region:

Grilamid TR in Automotive

Cup Holder



Material

- Grilamid TR
- High gloss piano black
- Good scratch resistance
- Good chemical resistance

OEM: MAZDA

Tier:

Region: