

## NEWS RELEASE

### **Teijin Develops Formable Gasoline-resistant Bioplastic Film for Vehicle Door Handles Integrated with Smart-entry Systems**

**Tokyo, Japan, February 14, 2018** --- Teijin Limited announced today that it has developed a formable gasoline-resistant film made of PLANEXT<sup>®</sup> bioplastic to replace chrome plating, which Honda Lock Mfg. Co., Ltd. has now adopted for nonconductive door handles integrated with smart-entry systems. Teijin developed the innovative film using a special metal-evaporation technology from a processing-manufacturer partner. Teijin is currently developing other automotive applications in addition to mass producing the film for door handles.



Honda Lock's door handle of smart entry system

This new film is made with PLANEXT<sup>®</sup> SN4600, an improved grade of Teijin's PLANEXT<sup>®</sup> bioplastic, which is made from a bio-origin chemical compound called isosorbide. In addition to original PLANEXT<sup>®</sup> properties such as chemical resistance, transparency and surface hardness, polymer reforming is used to give PLANEXT<sup>®</sup> SN4600 important new properties including gasoline resistance, formability, UV resistance.

Teijin's gasoline-resistant film is ideal for vehicle doors, which of course have the possibility of coming into contact with gasoline. Optimized heat resistance and filming technology enable high formability for fashioning into complicated shapes. UV protection helps to shield the base material and prevent discoloration.

Vehicle door handles are increasingly being integrated with secure smart-entry systems that enable doors to be locked and unlocked by simply placing one's hand on a handle sensor. The material surrounding the sensor, however, must be nonconductive to avoid sensor malfunctions, so conventional door handles made of electroconductive chrome plating coated on a resin base are not suitable. Plastic films made with a metal-evaporation process are nonconductive and already being used as metal substitutes for automotive exteriors, but they are not suitable for door handles because

they are neither gasoline resistant nor highly formable.

Teijin will showcase its innovative new film at 3Decotech Expo 2018 in the Booth 3R-09, East hall 2-3, operated by Kohki Co., Ltd. at Tokyo Big Site from February 14 to 16.

### **About the Teijin Group**

Teijin (TSE: 3401) is a technology-driven global group offering advanced solutions in the areas of environmental value; safety, security and disaster mitigation; and demographic change and increased health consciousness. Its main fields of operation are high-performance fibers such as aramid, carbon fibers & composites, healthcare, films, resin & plastic processing, polyester fibers, products converting and IT. The group has some 170 companies and around 19,000 employees spread out over 20 countries worldwide. It posted consolidated sales of JPY 741.3 billion (USD 6.5 billion) and total assets of JPY 964.1 billion (USD 8.5 billion) in the fiscal year ending March 31, 2017.

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