

# Bio-based Nylon

## Application of Bio-based materials UBE Nylon's Activity for Sustainability

### Sustainability

### Development of Novel Bio-based Nylon Grade

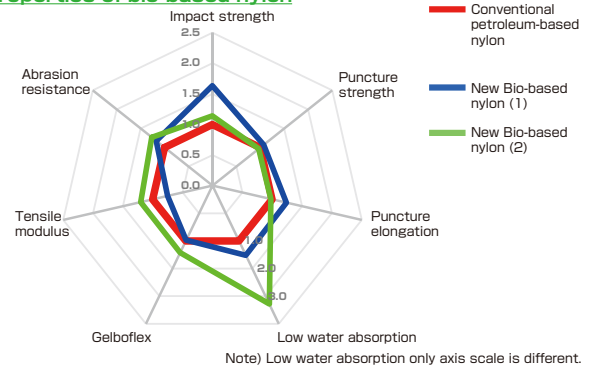
The Lineup of new nylon that uses partially or 100% plant-based raw materials. We propose "Bio-based Nylon" to solve customers' problems.

### Development of Novel Bio-based Nylon

#### High viscosity grade for extrusion applications

- Higher impact resistance than conventional petroleum-based nylon
- Excellent puncture strength equivalent to conventional petroleum-based nylon
- Excellent low water absorption and maintains physical properties in the usage environment
- Excellent stretchability, suitable for BOPA (Biaxially Oriented PolyAmide) film applications
- Possesses high chemical resistance as nylon
- Higher transparency than conventional petroleum-based nylon

#### Properties of bio-based nylon



#### Transparency of Bio-based Nylon

(4 mm thick injection molding plate overlaid on text)



No sample



Conventional petroleum-based nylon.



New Bio-based nylon (2).

### Development of Bio-based Nylon composite products

#### Injection grade(PA56)

- Developing new composite grade using Bio-based PA56.
- Excellent mechanical properties equivalent to petroleum-based PA66.
- UBE's unique composite technology enables a wide range of applications by combining various fillers and additives.

#### Properties of reinforced product (GF30%)

