

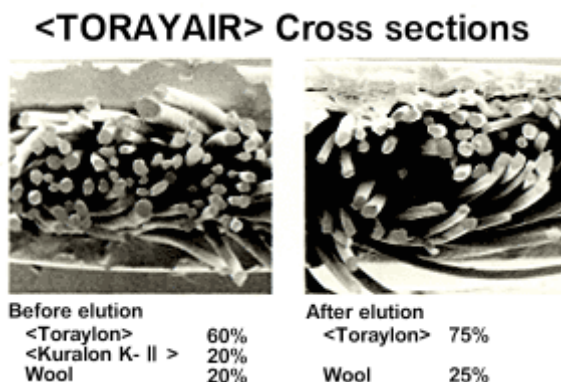
**Sale of this product has already terminated.**

May 12, 1999  
Kuraray Co., Ltd.  
Toray Industries, Inc.

### **New Acrylic Material TORAYAIR Launched**

**Produced by combining materials from Kuraray and Toray, this new material has superior lightness and a soft feel.**

Kuraray Co., Ltd. and Toray Industries, Inc. have developed a new spun yarn, TORAYAIR, using Toray's Sillwarm, the microfiber version of Toraylon acrylic staple, and Kuraray's *KURALON K-II*, a water-soluble fiber. In addition to being approximately 20% lighter than existing materials, TORAYAIR has excellent heat-retention



properties, a soft feel, fine stitching properties, pleasant elasticity and strength, and pilling resistance which prevents it developing pills. Toray has launched this spun yarn for use in the 1999 autumn and winter knitwear collections for young working people, such as sweaters and jerseys. At a price of ¥1,300/kg, sales are forecast to be 100 tons in the first year, and 300 tons in the second year.

This new material is a Toraylon blended yarn created by combining *KURALON K-II*, a new PVA fiber produced using Kuraray's wet-cooled gel spinning method, with a Toraylon microfiber, using advanced spinning techniques. At the dyeing stage *KURALON K-II* is eluted, creating spaces between the fibers within the spun yarn which give the product its lightness and heat-retention properties. Moreover, while Toray's original spinning technology allows fine stitching, the spaces between the fibers within the spun yarn, which are produced by the elution, give the product volume and elasticity and strength. Anti pilling Toraylon staple fibers give the product superior pilling resistance.

The development of new products and new markets is currently an important issue in the knitted products sector. As the fruit of cooperation between composite fiber manufacturers, TORAYAIR was developed for use in products that will appeal to the fashionable young working crowd.

**Sale of this product has already terminated.**

## Outline of TORAYAIR

**1. Product Name** <TORAYAIR>

### 2. Properties

Lightness and superior heat-retention

Soft, silky feel with elasticity and strength

Fine stitching

### 3. Technical Characteristics

*KURALON K-II*, a new PVA fiber produced using Kuraray's wet-cooled gel spinning method, is combined with Toraylon using advanced spinning techniques. At the dyeing stage *KURALON K-II* is eluted, creating spaces between the fibers within the spun yarn which give the product its lightness (20% lower than existing materials) and heat-retention properties, and producing volume and ideal elasticity and strength. Furthermore, using Sillwarm, the Toraylon microfiber, gives the product its soft, silky feel, and the use of special spinning techniques allows fine stitching.

In addition, anti pilling Toraylon staple fibers give the finished product superior pilling resistance.

### 4. Business Plan

**(1) Blend ratios** Toraylon 60%, wool 20%, *KURALON K-II* 20%

(In final product: Toraylon 75%, wool 25%)

**Yarn count** 1/40, 2/36

**Raw yarns** Silwarm, Toraylon microfiber 60%, Wool 20%  
*KURALON K-II* 20%

**(2) Applications** Knitwear for young working people (SPA apparel)

Legwear

**(3) Sales to begin** For the autumn/winter 1999 season

**(4) Projected sales volumes** Fiscal 1999 100 tons

Fiscal 2000 300 tons

**(5) Price** ¥1,300/kg (user)