

## CASE STUDY: K-Superskirt® Engineered Polyurethane

Kinder Australia Product:

**K-Superskirt® Engineered Polyurethane**

Comparison product:

Blue Polyurethane *(competitor details provided upon request)*

Product category:

Conveyor Skirting & Transfer

Tested by:

Excel Plas Pty Ltd, NATA Accredited Laboratory

### Test description:

The objective of the test was to compare the abrasive properties of similar two polyurethane products in the market under laboratory conditions using a Taber Abraser.

First each specimen is prepared for testing and the surface is abraded by rotating the specimen under weighted abrasive wheels. Next the Abrasion Resistance is calculated as loss in weight at a specified number of abrasion cycles, as loss in weight per cycle, or as number of cycles required to remove a unit amount of material.

The Taber Abraser apparatus consists of the following elements:

- a horizontal turntable platform; comprised of a rubber pad, clamp plate, and nut to secure the specimen to the turntable
- a motor capable of rotating the turntable platform at a speed of  $60 \pm 2$  revolutions/minute
- a pair of pivoted arms, to which the abrasive wheels and auxiliary masses are attached
- a load of 1000 g on each wheel using a changeable mass.
- a vacuum suction system and vacuum pick-up nozzle to remove debris and abrasive particles from the specimen surface during testing
- a counter to record the number of cycles (revolutions) made by the turntable platform.



<https://kinder.com.au>

Subject to © Kinder Australia Pty Ltd  
Issue: 202102

### Kinder Australia Pty Ltd

26 Canterbury Road, Braeside VIC 3195  
PO Box 1026, Braeside VIC 3195

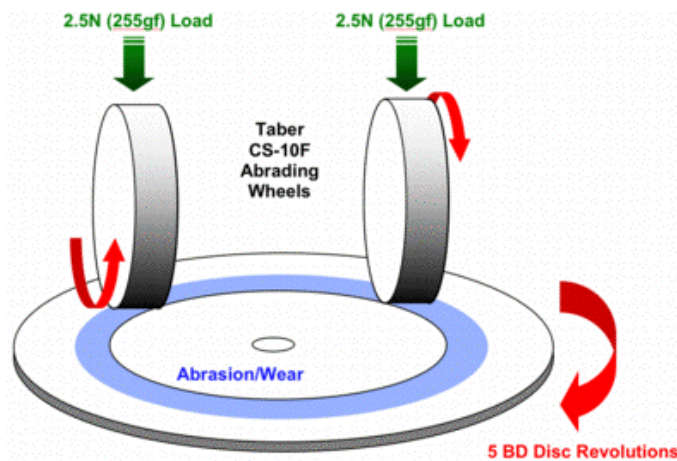
☎ +61 3 8587 9111  
☎ +61 3 8587 9101

✉ conveyorsolutions@kinder.com.au  
ABN: 28 006 489 238

## CASE STUDY: K-Superskirt® Engineered Polyurethane

### Test conclusions:

Based on the results of the “Taber Test” by Excel Plas, the test conclusions confirmed that the Kinder Australia K-Superskirt (red) polyurethane abrades less by comparison to the competitors (blue) polyurethane. The final result is further evidenced when tested at 50,000 cycles, wear index results showing 5.8 (red) compared to 25.92 (blue) or a ratio of 4.47: 1.



Red Polyurethane versus Blue Polyurethane

Initial Mass (milligrams)		Final Mass (milligrams)		Amount Removed (milligrams)		Number of Revolutions (cycles)		Wear Index	
Red	Blue	Red	Blue	Red	Blue	Red	Blue	Red	Blue
151,960	121,564	151,951	121,551	9	13	500	500	18.00	26.00
151,900	111,576	151,867	111,437	33	139	5000	5000	6.60	27.80
151,884	111,489	151,594	110,193	290	1296	50000	50000	5.80	25.92



<https://kinder.com.au>

Subject to © Kinder Australia Pty Ltd  
Issue: 202102

### Kinder Australia Pty Ltd

26 Canterbury Road, Braeside VIC 3195  
PO Box 1026, Braeside VIC 3195

☎ +61 3 8587 9111  
☎ +61 3 8587 9101

✉ conveyorsolutions@kinder.com.au  
ABN: 28 006 489 238