



## Automation

- Reduced labor cost by thermoplastic injection molding
- Automated production possibility versus traditional rubber outsole molding

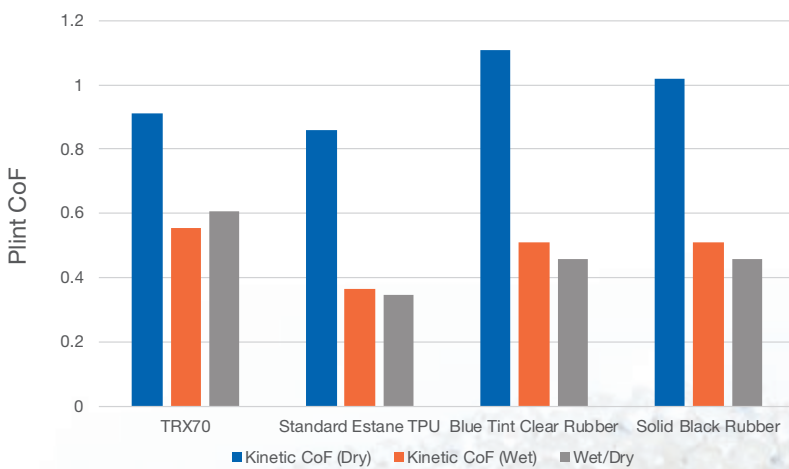
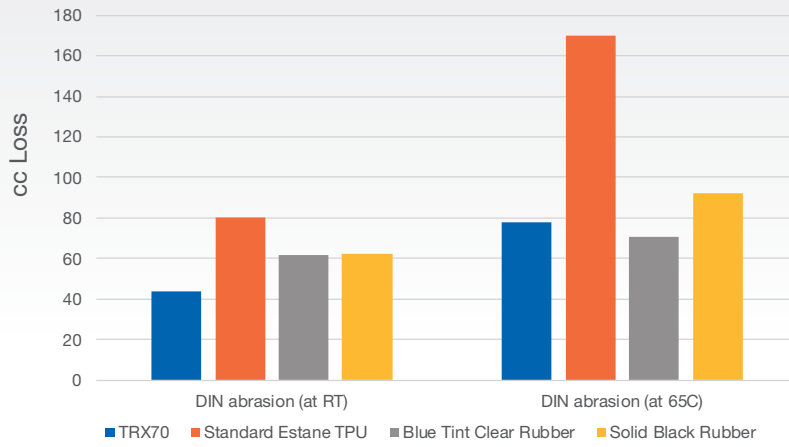
## Sustainability

- Recycling possibilities at outsole manufacturing and post with thermoplastic TPU which thermoset rubbers cannot provide

## Performance

- Exceptional slip resistance at wet ground condition
- Excellent wear resistance at room and high temperature against heat friction on the shoe outsole
- Transparent outsole enhancing color freedom for novel design.
- Thinner TPU outsole improves flexible outsole feeling and weight reduction

### DIN ABRASION AT ROOM TEMPERATURE AND HIGH TEMPERATURE



\* Smooth Surface Specimen against SATRA clay tile



### ESTANE® TRX PRODUCT PORTFOLIO

Estane® Product	Hardness (Shore A)	Tensile Strength (MPa)	Elongation (%)	Tear Strength (kN/m)	DIN abrasion (cc loss)	Haze
TRX 70	74	22	950	65	43	5.0
TRX 65*	69	25	1000	73	73	11.37
TRX 75*	78	34	875	92	45	8.35

\*Under development

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**ADVANCING MATERIALS.  
ELEVATING PERFORMANCE.**

