

Polyurethanes and thermoplastic polyurethanes product portfolio for footwear



TPU product portfolio for footwear

AVALON® and smartLite®

Product	Description	Benefits
AVALON® SOFT	Premium soft grades soling material	<ul style="list-style-type: none"> ▪ Durable ▪ Very good surface definition ▪ Design flexibility ▪ Slip resistant ▪ Antistatic (ESD) ▪ Very good adhesion ▪ Transparent and UV-stability (65 AK (-ESD))
AVALON® PERFORM	High performance TPU for demanding applications, where durability is key	<ul style="list-style-type: none"> ▪ Abrasion resistant ▪ Very good surface definition ▪ Cut and scratch resistant ▪ Cold flex properties ▪ Very good layer bonding
AVALON® CRYSTAL	Specially designed transparent material for fashion and sports	<ul style="list-style-type: none"> ▪ Transparency ▪ Special effects ▪ Durable ▪ Very good adhesion
smartLite®	Expanded TPU for sports, casual and fashion shoes	<ul style="list-style-type: none"> ▪ Low density ▪ Durable ▪ Soft touch ▪ Hydrolysis resistant ▪ High rebound ▪ 100% recyclable

AVALON® masterbatches

AVALON® AO 10012: Antistatic

AVALON® AO 10004: Abrasion improver (high melting point)

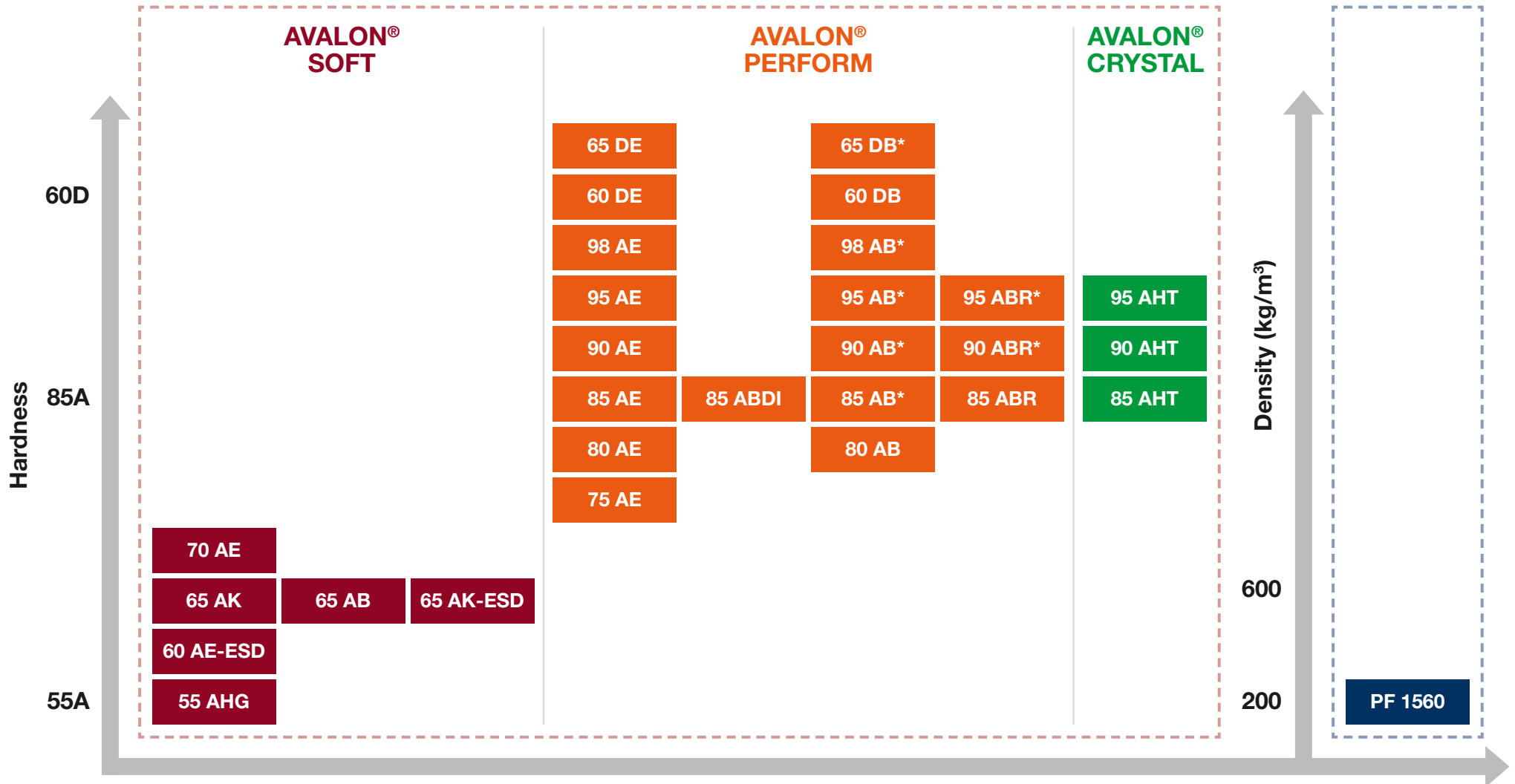
AVALON® AO 10129: UV masterbatch

AVALON® AO 10131: Rubber modifier

AVALON® AO 11004 : Abrasion improver (lower melting point)

TPU product portfolio for footwear

AVALON® and smartLite®



*Also available in UV protection
ABR = High Abrasion Resistance

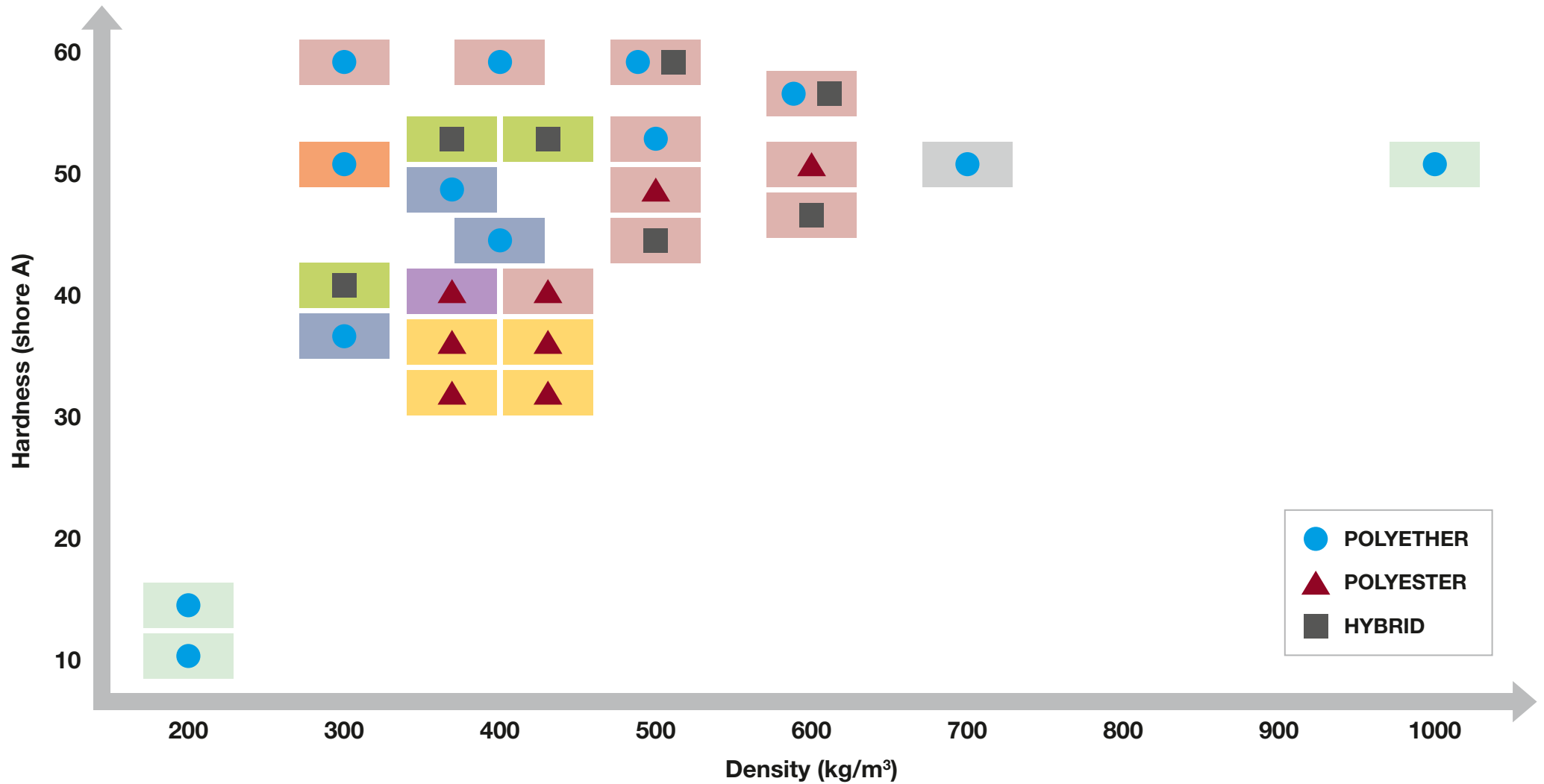
PU product portfolio for footwear

DALTOPED®

Product	Description	Application					Benefits
		Athleisure	Casual	Safety & Military	Sports	Inserts	
DALTOPED® PERFORM	A premium range of fully water-blown polyether and polyester soling solutions for direct-on or casting of unit soles, midsoles and outsoles.		●		●		<ul style="list-style-type: none"> ■ Durable and flexible ■ Robust processing on conventional machinery ■ Phthalate- and tin-free ■ Compliant with safety footwear regulations
DALTOPED® X-LITE	A lightweight polyether soling solution for direct-on or casting of unit soles and midsoles.	●	●		●		<ul style="list-style-type: none"> ■ Very good flex performance ■ Lightweight ■ Hydrolysis and abrasion resistant ■ Very good processing at low densities ■ Robust processing on conventional machinery
DALTOPED LITE-ENERGY®	A single density, lightweight, high rebound hybrid soling solution for direct-on or casting of midsoles.	●			●		<ul style="list-style-type: none"> ■ Lightweight ■ High rebound and cushioning ■ Cold temperature resistant ■ Very good physical properties compared to EVA
DALTOPED® AQUAPUR	A fully water-blown polyether soling solution providing good flow and surface definition for direct-on or casting of unit soles and midsoles.		●				<ul style="list-style-type: none"> ■ Fully water-blown ■ Easy and robust processing on conventional machinery ■ Plasticizer- and solvent free ■ Design flexibility ■ Hydrolysis and slip resistant
DALTOPED® DURALITE ENERGY	A high performing polyester soling solution providing lightweight, durability and energy return for direct-on or casting of unit soles and outsoles.			●			<ul style="list-style-type: none"> ■ Lightweight ■ High rebound and cushioning ■ Cold temperature resistant ■ Hydrolysis and abrasion resistant ■ Silicon-free
DALTOPED® DUAL DENSITY	A water-blown polyether and/or polyester solution for direct-on or casting providing a highly effective compromise between a hard wearing outsole and a low density cushioning midsole.		●	●			<ul style="list-style-type: none"> ■ Hard wearing outsole: abrasion resistant and surface definition ■ Lightweight, comfortable midsole ■ Multiple colors possible
DALTOPED® GRIP	A range of polyether and polyester soling solutions providing slip resistant properties for direct-on or casting of unit soles and outsoles.		●	●	●		<ul style="list-style-type: none"> ■ Slip resistant ■ Rubber-like touch and feel ■ Durable ■ Easy to process ■ Phthalate and tin-free ■ Compliant with safety footwear regulations
DALTOPED® COMFORT	A lightweight, water-blown polyether soling solution for micro-casting providing comfort and relief to your feet.					●	<ul style="list-style-type: none"> ■ Lightweight ■ Comfortable ■ Robust and easy processing

PU product portfolio for footwear

DALTOPED®



Europe

Huntsman Polyurethanes
Everslaan 45
3078 Everberg
Belgium
Tel.: +32 2 758 9211
elastomers_EU@huntsman.com

Asia

Huntsman Polyurethanes
452 Wen Jing Road
Minhang Econ. & Tech. Dev. Zone
Shanghai 200245
P.R. China
Tel.: +86 21 3357 6588
elastomers_APAC@huntsman.com

America

Huntsman Polyurethanes
Auburn Hills Technical Center
2190 Executive Hills Boulevard
Auburn Hills, MI 4836
USA
+1 248 322 7300
elastomers_Americas@huntsman.com

www.huntsman.com

About Huntsman:

Huntsman Corporation is a publicly traded global manufacturer and marketer of differentiated and specialty chemicals with 2018 revenues more than \$9 billion. Our chemical products number in the thousands and are sold worldwide to manufacturers serving a broad and diverse range of consumer and industrial end markets. We operate more than 75 manufacturing, R&D and operations facilities in approximately 30 countries and employ approximately 10,000 associates within our four distinct business divisions. For more information about Huntsman, please visit the company's website at www.huntsman.com.

Huntsman Corporation warrants only that its products meet the specifications stated in the sales contract. Typical properties, where stated, are to be considered as representative of current production and should not be treated as specifications. While all the information presented in this document is believed to be reliable and to represent the best available data on these products, HUNTSMAN MAKES NO WARRANTY OR GUARANTEE OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHT OF ANY THIRD PARTY, OR WARRANTIES AS TO QUALITY OR CORRESPONDENCE WITH PRIOR DESCRIPTION OR SAMPLE, AND ANY USER OF PRODUCTS DESCRIBED HEREIN SHOULD CONDUCT A SUFFICIENT INVESTIGATION TO ESTABLISH THE SUITABILITY OF ANY PRODUCT FOR ITS INTENDED USE AND ASSUMES ALL RISK AND LIABILITY WHATSOEVER RESULTING FROM THE USE OF SUCH PRODUCT, WHETHER USED SINGLY OR IN COMBINATION WITH OTHER SUBSTANCES. Products may be toxic and require special precautions in handling. For all products described herein, the user should obtain detailed information on toxicity, together with proper shipping, handling, and storage procedures, and should comply with all applicable safety and environmental standards. The behavior, hazards and/or toxicity of the products referred to in this publication in manufacturing processes and their suitability in any given end-use environment are dependent upon various conditions such as chemical compatibility, temperature, and other variables, which may not be known to Huntsman. It is the sole responsibility of the user of such products to evaluate the manufacturing circumstances and the final products under actual end-use requirements and to adequately advise and warn future purchasers and users thereof.

DALTOPED® is a registered trademark of Huntsman Corporation or an affiliate thereof in one or more, but not all, countries.

HUNTSMAN

Enriching lives through innovation

