



TECHNICAL DATA SHEET

UNIDYNE™ TG-5543

Water and Oil Repellent

Characteristics

Imparts excellent water and oil repellency to all types of fabric substrates.

Enhanced environmental performance.

Performance is durable through extended home laundering.

TG-5543 is environmentally friendly. It is built on C6 technology, contains low VOC's, and no APEOs (alkylphenol ethoxylates). This product, though typically applied topically, can also be spray applied.

TG-5543 and all *Unidyne*™ products are stable and compatible with common textile auxiliaries.

Properties*	Value
Appearance	Off white or pale pink emulsion
Ionic character	Weakly cationic
pH	1.5 - 4.0 @ 25°C
Specific gravity	1.07 - 1.17 @ 25°C
Solids content	29.0 - 31.0%
Solubility	Readily miscible in cold water
Shipping & Storage	Keep from freezing

*Typical properties are not suitable for specification purposes.

Recommended storage conditions between -5°C and 30°C (23°F and 86°F).

Application Guide

Fabric Type	WPU %	Chemical	Conc. (g/L)	Dry/Cure Conditions
Cotton Twill	75-90	TG-5543	60-80	Dry: 100 - 120°C for 1 - 2 min
		MDI Type BI	5-10	Cure: 160 - 180°C for 1 - 3 min

Note: To obtain maximum oil and water repellency, maintain a bath pH of 4 - 5. If pH is above 5.0, adjust pH with acetic acid.

When a wetting agent such as isopropyl alcohol or isobutyl alcohol is used, it must be thoroughly dissolved and diluted before TG-5543 is added.

Dry/Cure conditions are based on a lab setting.

Performance Guide

Standard Recipe

FC amount	80 g/L
BI amount	10 g/L
WPU	86 %
Cure	166°C (330°F) x 3 min

	Cotton Twill	TG-5543
Spray (AATCC TM-22)	HL0	100
	HL10	80
	HL20	70
IPA (AATCC TM-193 based on percent)	HL0	90
	HL10	90
	HL20	50
Oil (AATCC TM-118)	HL0	6
	HL10	5
	HL20	4

Safety Precautions

Reference the Safety Data Sheet for details regarding the safe use and disposal of this product.

Technical Support

Technical support requests we make available the resources of our technical service team to assist with manufacturing problems, formulation development, product application, and quality control. With technical service centers in the US, China, Japan, Taiwan, Korea, and Europe, Daikin personnel are essentially available around the clock.

Quality

Unidyne[™] is an example of Daikin America's commitment to Total Quality Management. Our advanced technologies and computer controlled systems produce products with absolute consistency, ensuring reproducible quality.

Perfect Chemistry

Our manufacturing, R&D, sales and marketing teams are linked by a common pursuit: To better serve our customers. We strive to be proactive and immediate in our response to customer needs.