Laboratory Services for Textiles and Nonwovens

AsahiGuard E-SERIES

Your Dreams, Our Challenge

Textiles/Nonwovens Technical Services

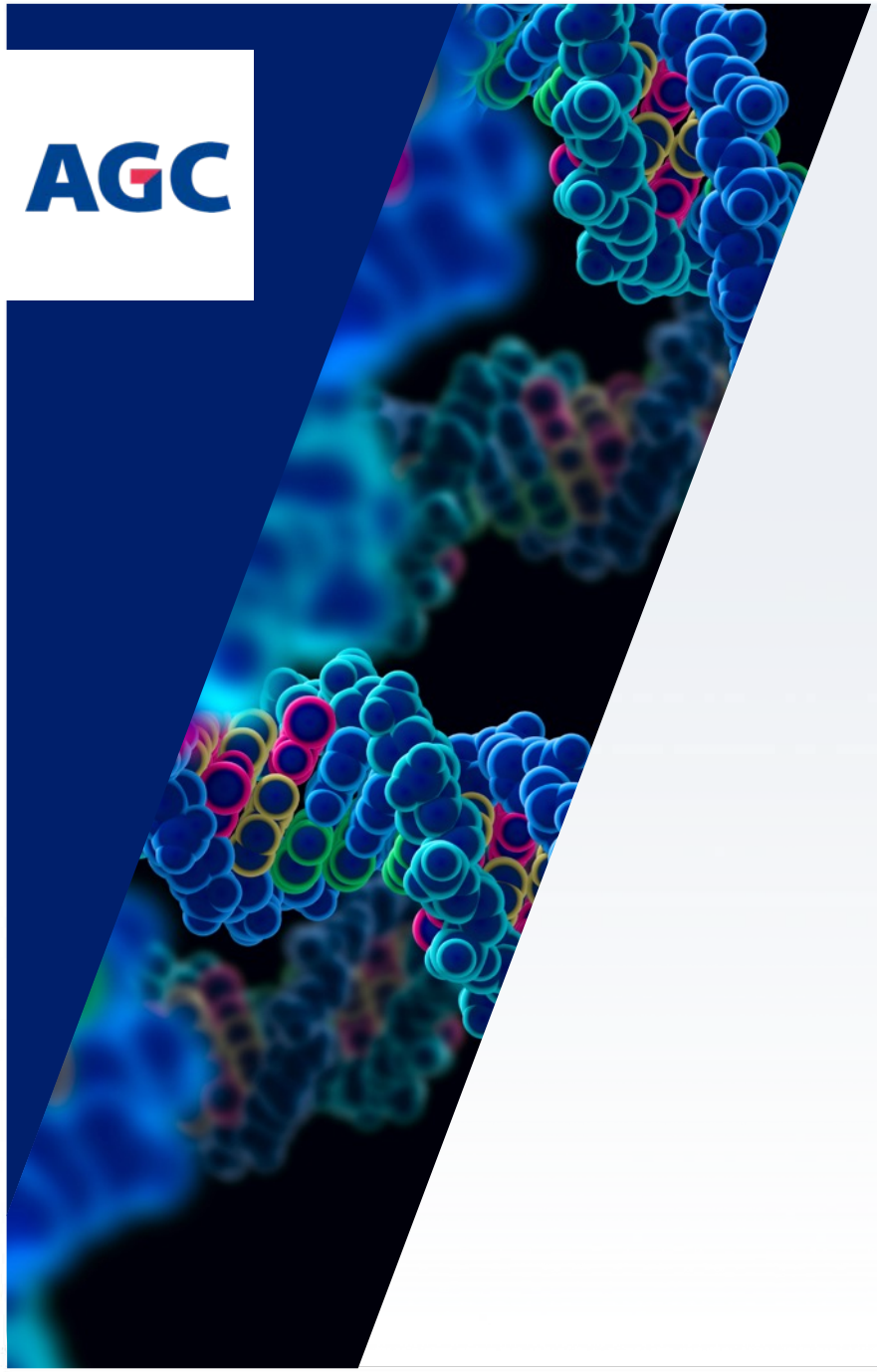
- Fabric information and recommendations
- Product application
- Performance evaluation
- Formulation support
- Direct on-site customer support

Recommendations for Fabric Selection

- Supply background information on various textiles
- Communicate strengths and deficiencies
- Support customer fabric selection
- Provide application-based recommendations

Application Support Services

- Fabric preparation
- Treatment
- Drying
- Curing
- Ironing

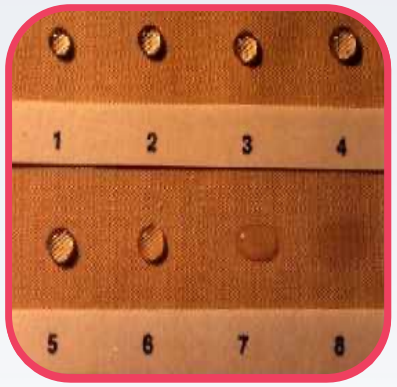


Performance Evaluation Services

- Water repellency
- Oil repellency
- Spray performance
- Stain release
- Wash durability
- Hydrostatic testing
- Static decay
- Surface resistivity

Static Water Repellency: Drop Kit Test Method

- Three drops of the IPA and water solutions are placed on the fabric
- Fabric passes the test if no wetting is observed after ~15 seconds



Water Drop Kit Test AATCC 193 (Teflon/CHT Standard)

Kit Comparison

3M Kit Test		
Grade	Isopropanol	Water
W	0%	100%
1	10%	90%
2	20%	80%
3	30%	70%
4	40%	60%
5	50%	50%
6	60%	40%
7	70%	30%
8	80%	20%
9	90%	10%
10	100%	0%

Teflon® Kit Test		
Grade	Isopropanol	Water
1	2%	98%
2	5%	95%
3	10%	90%
4	20%	80%
5	30%	70%
6	40%	60%
7	50%	50%
8	60%	40%

Oil Repellency: Drop Kit Test Method

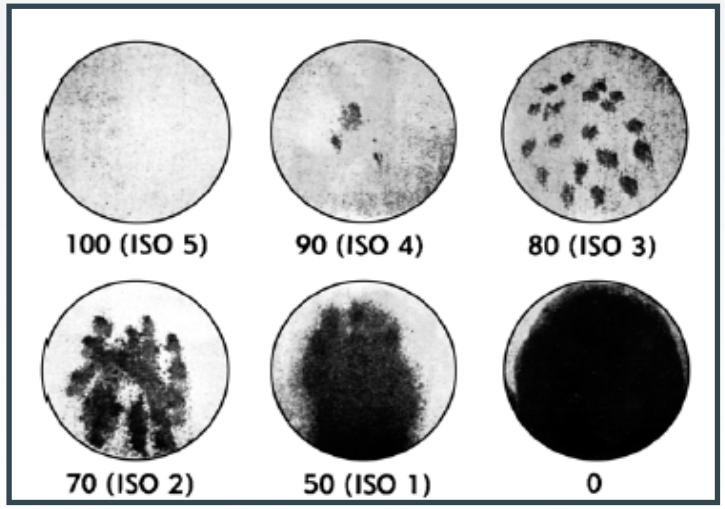
- Three drops of the test grade are placed on the fabric
- Fabric passes the test if no wetting is observed after 15–30 seconds

Oil Kit Test	
Grade	**Description**
1	Kaydol Oil
2	65:35 Kaydol: Hexadecane
3	Hexadecane
4	Tetradecane
5	Dodecane
6	Decane
7	Octane
8	Heptane

Oil Drop Kit Test AATCC 118

Dynamic Water Repellency: Spray Test Method

- 250 ml of tap water is sprayed over fabric
- Spray height = 15 cm
- Knock off the specimen
- Ratings: 0–100



Spray Test AATCC 22

Stain Release Test Method

Stain Release Test AATCC 130

Measures ability of fabric to release oily stains during home laundering

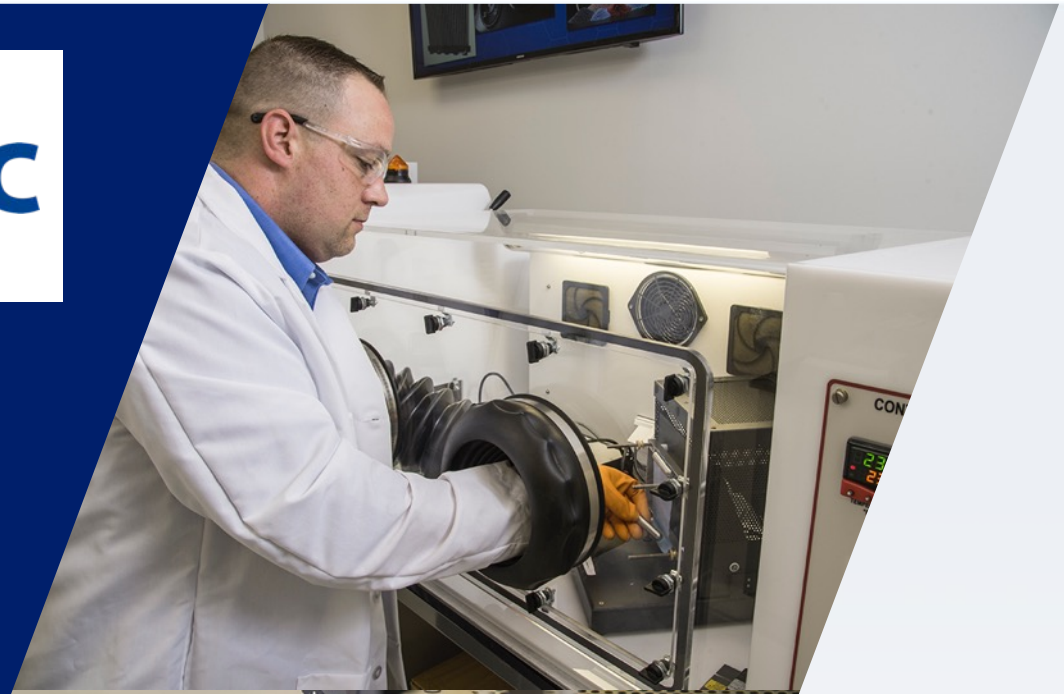
- Corn oil and mineral oil are applied to fabric
- Glassine surface is placed on top followed by a 2.27 kg weight for 60 seconds
- Surface and weight are removed and the fabric is washed

Wash Durability

- Allows fabric to be washed and dried as much as required
- Sample evaluation is completed again after the wash and dry cycles are completed
- Provides a numerical value for performance longevity
- Used in stain release evaluations

Hydrostatic Pressure Testing

- Equipment measures the force (kPa) and time required to force a liquid, usually water, through a piece of fabric
- The greater the force and time required to penetrate the fabric, the more resistant the fabric is to that particular liquid
- This equipment provides a means of quantitatively differentiating treatments that perform similarly in the testing discussed earlier



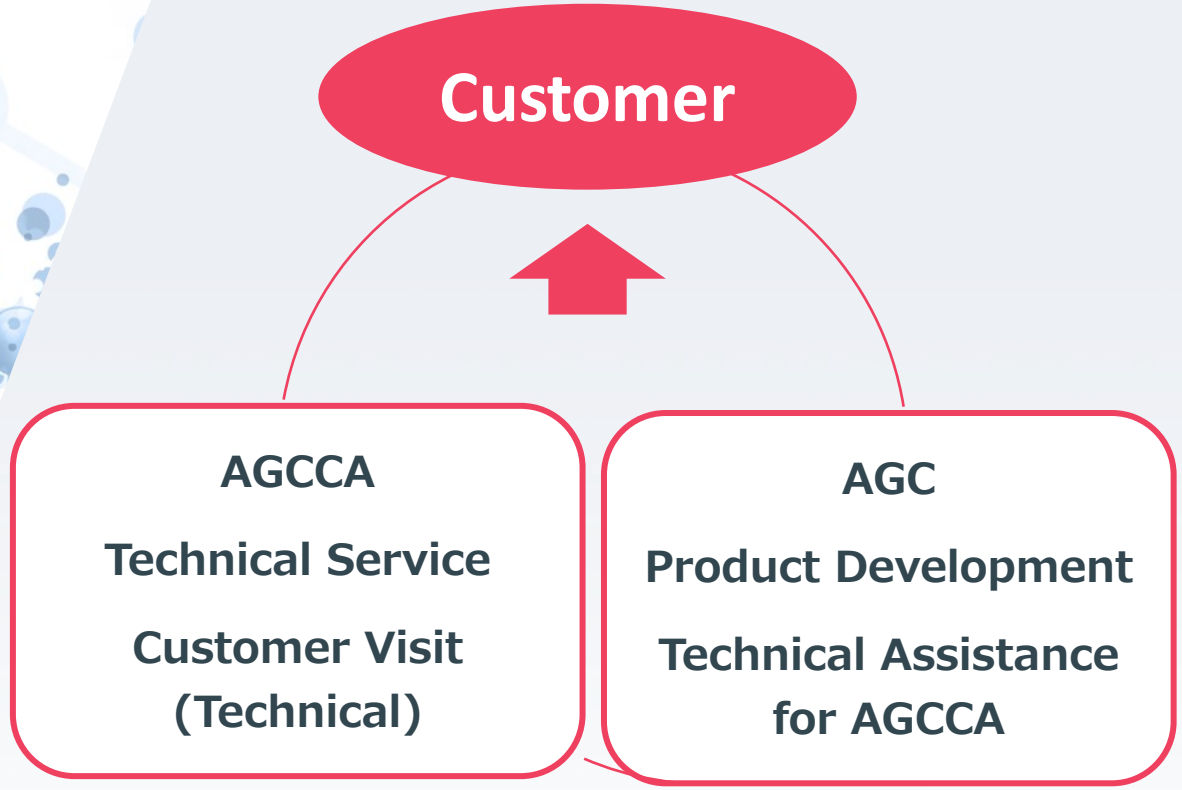
Static Decay Testing

- Measures the time it takes for the charge applied to the fabric to dissipate
- Decay data is useful for medical garment and carpet customers

Surface Resistivity Testing

- Electrical resistance of the fabric surface is measured between two concentric rings
- Comparing the voltage gradient to the current density provides a numerical value of how much charge can build up on the surface of the fabric

Direct Customer Support



Available for:

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- Canada
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