

FibraLAST™ PC-200

Non-fluorinated Barrier Technology

Additive for paper and paperboard products



Our Mission

We're committed to supplying our customers high-performance material solutions through our motivated employees, innovative technologies and responsiveness.

Your Dreams, Our Challenge

New Non-fluorinated Barrier Technology



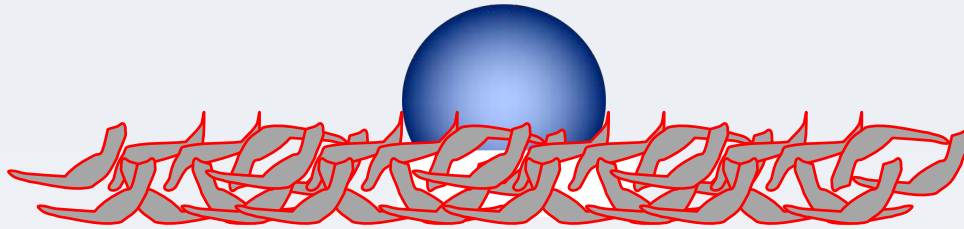
Designed as an environmentally friendly alternative to traditional oil sizing product grades as non-fluorinated sizing additives to protect paper products from both water and food oils.

New Non-fluorinated Barrier Technology

Fluorinated

vs.

Non-fluorinated FibraLAST



- Coats individual fibers
- Low surface energy of the fibers prevents penetration by higher surface tension liquids



- Coats fibers and fills pores in fiber network
- A single wet-end additive repels both water and oil
- Unique combination of chemical and physical barrier
- Liquids face a tortuous path to penetrate fiber network

Applications for FibraLAST Additives

- Molded, formed fiber, and cardboard products
- Fast-casual bowls, plates, containers, pizza boxes



Approved for Food Contact

- FDA compliant for contact with food of all types, with the following limitations:
 1. Maximum loading of 20% active content by weight of oven-dried pulp
 2. Apply prior to sheet forming
 3. Use in accordance with current good manufacturing practice
- Kosher approval pending



Benefits for Paper and Molded Fiber Products

- Repels water
- Provides a barrier against food oils and greases
- Prevents bleed-through of high-temperature liquids and oils
- - 80 °C water and oil holdout performance
- Patent pending technology
- Made in the U.S.A.



Environmental Benefits

- Non-fluorinated
- No silicones
- No heavy metals
- Plant derived components

Processing with FibraLAST

- Applied to the paper pulp itself
- Designed for wet end processes
- No additional equipment or process required since additives are applied to the pulp before fabrication



FibraLAST Certification Status

Certification	Status
FDA Food Contact	✓
BfR Compliant	In progress
BPI Certified Compostable	In progress
Kosher	In progress*
Kosher certification of manufacturing facility	In progress
on DSL	✓
ChemForward or GreenScreen inventories	Being considered

*raw materials are not animal sourced

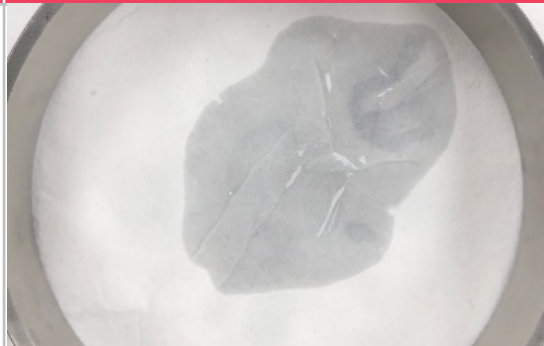

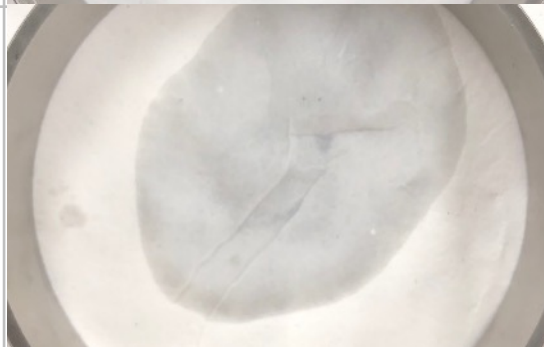
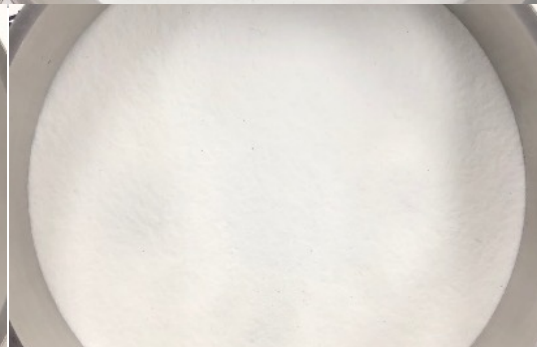
TAPPI Holdout Performance Test Results

80 °C Mazola® corn oil for 2 hours

300 gsm	untreated	PC-200 5% dry/OD
top		
bottom		
TAPPI kit score	0	4

TAPPI Holdout Performance Test Results

90 °C tap water

300 gsm	untreated	PC-200 5% dry/OD
top		
bottom		
Cobb 120 (gsm)	440.7	22.6

*No AKD or ASA needed

Your Dreams, Our Challenge



FibraLAST Now Available



- Currently in scale-up
- Will be manufactured in the United States
- Not currently available in all regions

Learn more

www.agcchem.com

610-423-4300 800-424-7833

Your Dreams, Our Challenge



AGC Global Operations

A stylized world map in a medium blue color is centered in the background of the slide. Four red rectangular callout boxes are overlaid on the map, each containing white text. The boxes are positioned over North America, Europe, South America, and Asia/Australia.

**A world-leading
fluorochemical
manufacturer**

**US \$14.2 billion
net sales**

56,000 employees

**205 consolidated
subsidiaries in 30
countries**

Your Dreams, Our Challenge

AGC Chemicals Japan

- Headquarters – Tokyo
- Factories – Chiba and Kashima
- Sales offices – Tokyo, Osaka, Fukuoka, Nagoya
- R&D – Yokohama

AGC Chemicals Asia

- AGC Chemicals Trading Co. Ltd. – Shanghai, China
- P.T. Asahimas Chemical – Jakarta, Indonesia
- AGC Chemicals Co. Ltd. – Bangkok, Thailand
- AGC Chemicals Asia Pacific Pte. Ltd. – Singapore

AGC Chemicals Europe

- Head Office and Production Plant Thornton Cleveleys, UK
- Chemicals Commercial Center – Amsterdam, The Netherlands
- Sales office in Russia

AGC Chemicals Americas

- Head Office and Technical Center – Exton, Pa.
- Production Plant – Thorndale, Pa.
- Formed in 2004 through a merger with AGA Chemicals and AG Fluoropolymers USA
- Sales office in Guaratinguetá Brazil