



**APPRETAN® NTR** / How can you harness the power of nature?



/ How do **we**  
harness the  
power of nature  
**together?**



## CREATING SUSTAINABLE SOLUTIONS, THE ARCHROMA WAY

As a global leader in color and specialty chemicals, we touch and color people's lives every day, everywhere. That is why, at Archroma, we continuously challenge the status quo in the deep belief that we can make our industry sustainable.

We are committed to develop innovative systems and services to provide you with custom solutions that are:



**SAFE** – It's our nature to protect.

Safe to use, safe to release and safe to wear.

**EFFICIENT** – It's our nature to rethink sustainable manufacturing.

Innovating application processes that minimize resources and maximize productivity.

**ENHANCED** – It's our nature to add another level of value.

Effects, functionality and aesthetics to give additional value, for a life enhanced.

We call it "The Archroma way". Because **it's our nature!**





## INTRODUCING NATURE-BASED POLYMERS FOR FOOD CONTACT

Consumers aspire to goods that bring them function, beauty ... and meaning – goods that are made in a more sustainable and responsible way. When it comes to products that contain food, we all want that extra level of protection that will keep us and our loved ones safe.

With that in mind, Archroma developed **Appretan® NTR**, a break-through coating binder range based on renewable natural ingredients for applications such as tea bags, coffee filters or capsules.

About one third of **Appretan® NTR's** active content is based on a polysaccharide from renewable raw materials, allowing a reduction in the use of fossil fuel based resources without compromising performance.

**Appretan® NTR** complies with the stringent BfR XXXVI/1 food contact regulation standard, whilst providing excellent mechanical properties as such and in boiling water.

- **Acrylic copolymer containing 1/3 of renewable raw materials**
- **Hydrophobic and high film formation**
- **Formaldehyde free\***
- **Non-biocidal**
- **APEO free**



\* None of the component being used in the manufacturing process contains formaldehyde, however trace impurities of formaldehyde cannot be excluded.





## FINE-TUNING YOUR SOLUTION WITH NATURE-BASED CHEMISTRY

The **Appretan® NTR** range includes the following bio-based polymers designed to cover multiple applications:

### **Appretan® NTR 6304 liq**

- 42% solid content, Tg - 10°C, 2/5 (40%) of renewable raw materials
- Formaldehyde free\*, non-biocidal

### **Appretan® NTR 6553 liq**

- 40% solid content, Tg +15°C, 1/3 of renewable raw materials, non self-crosslinking
- Formaldehyde free\*, non-biocidal

\* None of the component being used in the manufacturing process contains formaldehyde, however trace impurities of formaldehyde cannot be excluded.





## HARNESSING THE POWER OF NATURE INTO YOUR APPLICATION

The use of bio-based raw materials brings into the **Appretan® NTR** polymers a constellation of reactive groups that can build, when combined with suitable crosslinkers, strong dimensional networks, providing to the system a “thermoset like” property.

That can be required in highly demanding applications where mechanical properties at high temperature are state of the art (PES spunbond for roofing, abrasive material...)

## CROSSLINKING SOLUTIONS FOR THE PERFECT COMBINATION

Build-up the desired aqueous bio-based polymer with high crosslinking capability with **Appretan® NTR range liq** by creating external crosslinking with:

- **Cartaretin® F liq**, formaldehyde free\* for higher strength and BfR XXXVI/1 standard compliant
- **Arkophob® DAN New liq**, formaldehyde free\* with low unblocking temperature and enhanced formulations compatibility and stability
- **Arkophob® XLR liq** formaldehyde free\* with high reactivity and low cure profile
- **Cassurit® LFC liq**, low formaldehyde (non H350 classified) and food contact compliant

**The use of selected polymer dispersions, crosslinkers, and additives in a perfectly balanced recipe, adapted to the customer materials and requirements will be the key to success.**



BOILING WATER RESISTANCE



TOUCH / SOFT



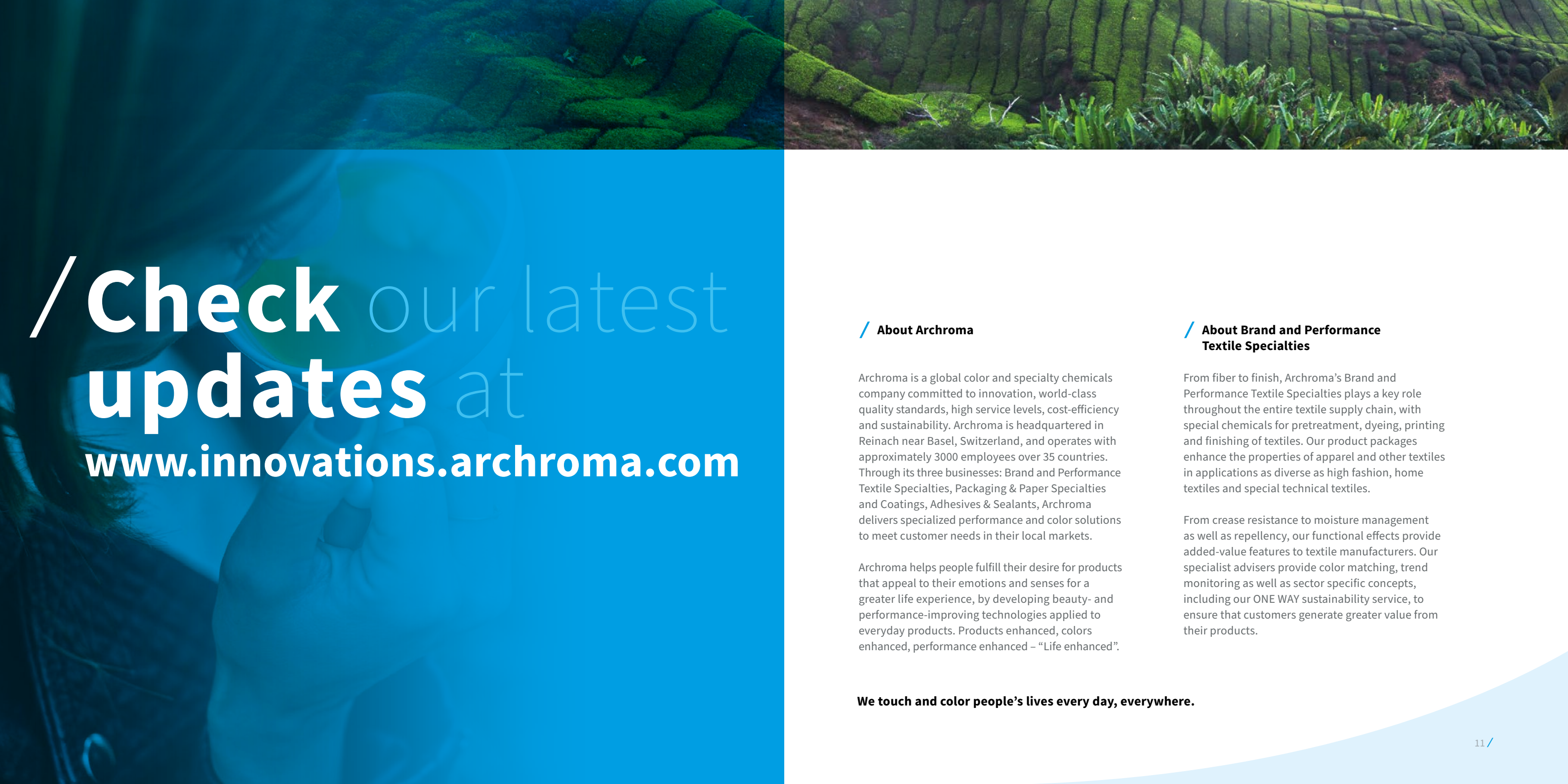
TOUCH / STIFF



DURABILITY

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#### / About Archroma

Archroma is a global color and specialty chemicals company committed to innovation, world-class quality standards, high service levels, cost-efficiency and sustainability. Archroma is headquartered in Reinach near Basel, Switzerland, and operates with approximately 3000 employees over 35 countries. Through its three businesses: Brand and Performance Textile Specialties, Packaging & Paper Specialties and Coatings, Adhesives & Sealants, Archroma delivers specialized performance and color solutions to meet customer needs in their local markets.

Archroma helps people fulfill their desire for products that appeal to their emotions and senses for a greater life experience, by developing beauty- and performance-improving technologies applied to everyday products. Products enhanced, colors enhanced, performance enhanced – “Life enhanced”.

#### / About Brand and Performance Textile Specialties

From fiber to finish, Archroma’s Brand and Performance Textile Specialties plays a key role throughout the entire textile supply chain, with special chemicals for pretreatment, dyeing, printing and finishing of textiles. Our product packages enhance the properties of apparel and other textiles in applications as diverse as high fashion, home textiles and special technical textiles.

From crease resistance to moisture management as well as repellency, our functional effects provide added-value features to textile manufacturers. Our specialist advisers provide color matching, trend monitoring as well as sector specific concepts, including our ONE WAY sustainability service, to ensure that customers generate greater value from their products.

**We touch and color people’s lives every day, everywhere.**



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