TECHNICAL DATA SHEET - ANTIMICROBIAL FILM - PURE ZONE® RANGE - PERMANENT ADHESIVE

PURZONORIB – PURZONORIM

(PURZON060B and PURZON060M before 01/02/21)

Film consisting of a 2.36-mil (0.06 mm), transparent, cast PVC containing antimicrobial agents and coated with a pressure-sensitive acrylic adhesive. This film is intended for the protection of surfaces against these types of stress: physical (scratches, deformations, glass breakage), optical (reduces the effects of light on the substrates, or even the oxidation of the substrates) and chemical (creates a physical barrier on the surface of the item by limiting the contact with liquids). Due to its pressure-sensitive adhesive, this film can be used as a temporary protection and can be removed without damaging the substrate. Glossy (PURZONORIB) or matt (PURZONORIM) surface finish. This product is B-s1, d0 classified according to the French standard for fire behavior (protocol no. EFR-20-001938).

The antimicrobial properties of this treated article that incorporates a biocidal product allow for the protection of surfaces against microbes in areas that require a high level of hygiene (hospitals, agribusinesses and food industries, wet rooms, public places, etc.).

ANTIMICROBIAL ACTIVITY – PURE ZONE® TECHNOLOGY:

Antiviral activity on the coronavirus strain SARS-CoV-2 (according to the ISO 21702 standard) (report VirHealth no. R2103FSHEX001):

- 90 % after a contact time of 60 min.,

Antiviral activity on the Human coronavirus strain HCoV-229E (according to the ISO 21702 standard) (report VirHealth no. R2007HEX001-2):

- 94.99 % after a contact time of 15 min.,
- 99.87 % after a contact time of 60 min.

The reduction of > 99,99 % of bacteria (according to ISO 22196) confirmed for the active strains of (report Intertek CHL-R14-0815 / CHL-R16-1301):

- *Escherichia coli*,
- Salmonella *(Salmonelle enterica),*
- Listeria *(Listeria monocytogenes),*
- Golden staph *(Staphylococcus aureus),*
- Methicillin-resistant *Staphylococcus aureus* (MRSA),
- *Pseudomonas aeruginosa.*

REACH REGULATION:

The PURZONORIB and PURZONORIM films comply with the Biocidal Products Regulation (BPR) and ECHA's list of SVHC (Substances of very high concern).

- *The films contain a biocide (**silver phosphate glass**) that complies with the REACH Directive. This active ingredient is registered in the BPR list under the CAS number: **308069-39-8**.*
- *The films do not contain any ingredient described in the SVHC list.*

FILM FEATURES:

	Indicative values
• Thickness:	2.36 mil *0.06 mm*

	Average values	Standard
• Tensile strength:	min. 3.32 lb./in. *min. 15 N/25 mm*	HEXNFX41021
• Elongation at break:	min. 100 %	HEXNFX41021
• Shrinkage 168 hours at 158 °F (70 °C):	< 0.03 inch *< 0.8 mm*	HEXRET001

LINER:

- Silicone-coated PE paper with HEXIS print.
- Stable under hygrometric variations.

ADHESIVE PROPERTIES:

(Measured average values at publication of the technical data sheet)

	Average values	Standard
Peel strength test 180° on glass:		HEXFTM001
after 20 min. of application	3.32 lb./in. *15 N/25 mm*	
after 24 hours of application	3.76 lb./in. *17 N/25 mm*	
Initial tack	4.43 lb./in. *20 N/25 mm*	HEXFTM009
Release	0.11 lb./in. *0.5 N/25 mm*	HEXFTM003

- Resistance to solvents: the adhesive is resistant to most chemicals (alcohol, diluted acids, oils).

ADHESIVE:

- Solvent-based acrylic adhesive.
- Immediate and permanent adhesion.

USER'S INSTRUCTIONS:

- This product is B-s1, d0 classified according to the French standard for fire behavior (protocol no. EFR-20-001938).
- Under normal usage conditions, harmless when in contact with human skin (skin compatibility study carried out under dermatological control: report Biophyderm no. 832/0914-2302).

  ✓ No allergenic potential.
  ✓ No irritant potential.

- Active compound: Silver ions, < 0.3 % w/w of the entire product.
- Antimicrobial activity maintained after 365 cleanings with water, alcohol, chlorine bleach and Aniosurf® (report Intertek no. 2014-CHL-R14-0902/1013).

With regard to the cleaning products, respect the dilution recommended by the manufacturer.

- The film can be cleaned/disinfected by all conventional cleaning methods, using non-abrasive accessories, cleaning products, detergents or products currently used in healthcare environments.

The disinfection levels achieved are compatible with common usage in the most sensitive areas in terms of infectious risks (surgery wards, immunocompromised wards, neonatology, etc.).

The film is resistant to more than 3 000 cycles of wet abrasion with a non-abrasive sponge (ISO 11998).

- Only apply the film to areas that will not be in direct contact with unpackaged food.
- Compatible with an application to regular or irregular surfaces.
- It can be used as a cold laminate on cast HEXIS digital printing films, compatible with solvent, eco-solvent, latex or UV inkjet technology.
- Minimum recommended application temperature: +50 °F (+10 °C).

- Operating temperature range: -40 °F to +194 °F (-40 °C to +90 °C).
- In the case of an already painted substrate, self-adhesive media must only be applied to undamaged original paintwork. If the paintwork is not original and/or damaged, the application and the removal are at the judgement and risk of the installer.

OPERATING RECOMMENDATIONS:

- Before applying this laminate to a HEXIS digital printing film, which has been printed with solvent inks, it is recommended to respect the following optimal drying time for the inks:
  - 48 hours if the printed film is cast,
  - 24 hours if the printed film is calendered.
- For more information on the application method of the PURZONORIB – PURZONORIMB films, please refer to the Application Guide on our site www.hexis-graphics.com/en/supports/application-guides.

STORAGE:

- Shelf life (before application):

  The shelf life of this film is 1 year when stored upright in its original packaging in a dust-free environment at a temperature ranging from +59 °F to +77 °F (+15 °C to +25 °C) with relative humidity of 50 %.

DURABILITY:

Indoor use:

- Vertical indoor exposure: up to 5 years (in areas not subject to frequent handling or high visitor frequency).

- The bacteria-reducing properties are inherent to the film (when stored in its original packaging) and confirmed for Golden staph (Staphylococcus aureus) (Standard ISO 22196):
  - Initially: > 99.99 %
  - After 6 years: > 99.99 %

Outdoor use:

- Resistance to yellowing in vertical outdoor exposure: up to 4 years.
- The bacteria-reducing properties are inherent to the film:

  after 6 months of outdoor exposure (Southern 45°): > 99.9 % (report Eurofins STUYHA21AA0065); confirmed for Golden Staph (*Staphylococcus aureus)* (Standard ISO 22196).

A film applied in areas of frequent handling (e.g.: handles) or high visitor frequency will be subject to repeated abrasion that will reduce its durability (change of appearance, lifting, etc.). The film durability depends on the intensity and frequency of the mechanical stress to which it is exposed.