RITRAMA Ri-Defend P80

PRODUCT DESCRIPTION / BENEFITS	 Ri-Defend P80 series is a self-adhesive invisible barrier against germs and bacteria, that can be applied on doors, handles, windows, tables, chairs, displays, touch screens, in all places where a high standard of hygiene & healthcare is required, such as in hospitals, laboratories, retirement homes, etc Ri-Defend P80 series is a self-adhesive lamination film with a biocidal activity (ZnP - Zinc Pyrithione CAS 13463-41-7), inhibiting bacteria proliferation and killing up to 99.9% of bacteria in contact with the film. According to ISO 22196:2011, the film is resistant to: Escherichia coli ATCC 8739 Enterococcus faecalis - ATCC 29212 Listeria monocytogenes - ATCC 13932 Klebsiella pneumoniae - ATCC 4352 Staphylococcus aureus - ATCC 6538 Pseudomonas aeruginosa - ATCC 27853 Salmonella enterica - ATCC 14028 Ri-Defend P80 series can be cleaned with ethanol 70-80% or any other disinfection agents recommended by OMS against COVID-19. Ri-Defend can also be used as laminate on Ri-Jet media printed with solvent, eco-solvent, latex and UV-curable inkjet inks. The PET liner ensures a good product transparency. All products are REACH & RoHS compliant.
TYPICAL USE	 Protection against germs and bacteria Long term outdoor & indoor lamination film for decorations made with Ri-Jet P75 media Protect printed media from abrasion and retard colour fading
CONSTRUCTION	 Face film: 80 µm ultra-clear polymeric calendered vinyl with antibacterial properties Adhesive: permanent clear solvent-based acrylic Release liner: 36µm transparent PET Products: Clear Gloss finish: code 11621 - Ri-Defend P80 Ultra-Clear Gloss Perm SB N
CONVERTING METHOD	Direct application on a clean and degreased substrate with the wet method. Lamination on a printed media with a laminator.
APPLICATION METHOD / INSTRUCTIONS FOR USE	The printed media to laminate should dry minimum 24h prior to lamination. Laminate without tension on the printed media.



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EXPECTED DURABILITY	The expected vertical outdoor durability in Central Europe (zone 1) is 5 years. This information is based on real file experience and artificial aging according to ISO 4892-2. Note: Exposure to severe temperature and ultra-violet light will cause a quicker deterioration. This applies also to polluted area, high altitude, horizontal applications, and south-facing exposure.

SHELF LIFE

Shelf life is 2 years, when stored at 23 °C and 50 % relative humidity conditions. Higher temperatures and/or humidity levels will reduce product shelf life.

Ri-Defend P80

50PHYSICO-CHEMICAL PROPERTIES / TYPICAL VALUES

Face thickness, without adhesive	80 µm	ISO 534-80
Face thickness, with adhesive	100 µm	ISO 534-80
Tensile strength (machine direction)	> 20 N/cm	ISO 527
Elongation at break (machine direction)	>150%	ISO 527
Fire resistance on aluminium	Self-extinguishing	ISO 3795:1989
Dimensional stability	0.5 mm	FTM 14
(1 week @70 °C on glass)		
Initial adhesion on glass (20 minutes)	10 N/25mm	FTM1
Adhesion on glass (24 hours)	15 N/25mm	FTM1
Final adhesion on glass (1 week)	17 N/25mm	FTM1
Minimum application temperature	+10 °C	
Service temperature	From -40 °C to +90 °C	
PET liner	36 µm	ISO 534-80
Humidity resistance	No effect	200 hours exposure
Water resistance	No effect	24 hours immersion
Detergent (1% solution)	No effect	24 hours immersion
Isopropyl alcohol / Water (20/80)	No effect	10 minutes immersion

QUALITY CERTIFICATION



DISCLAIMER

Information on physico-chemical characteristics and values in this document are based upon tests we believe to be reliable and do not constitute a warranty. They are intended only as a source of information and are given without guarantee and do not constitute a warranty. Purchasers should independently determine, prior to use, the suitability of this material to their specific use. All technical data are subject to change. All Fedrigoni products are sold subject to terms and conditions of sale. For more information, contact your Fedrigoni sales representative. In case of any ambiguities or differences between the English and foreign versions of this document, the English version shall be prevailing and leading.

