



BMT AllergyGuard Window Shield

Engineered with BMT NanoScreen™ Filtration Technology

BMT **AllergyGuard** Window Shield is a high-performing functional screen on rolls that blocks or restricts a wide spectrum of unwanted airborne particles including pollen and allergens as well as fly ash, agricultural dust, coal dust, bacteria and droplets carrying many virus particles. A heavy-duty, highly durable, puncture resistant *NanoScreen™* technology product designed for window and door installation and any screened-in enclosure where protection is required.

The proprietary BMT *NanoScreen™* technology at the core of our AllergyGuard Window Shield screen forms a defensive barrier to prevent entry of these unwanted airborne particles into the home, office, workspace, or institutional and industrial facilities.

AllergyGuard is an Excellent Choice For:

- Real Estate Developers & Builders
- Individual Homeowners
- Condominium Owners
- Construction Companies
- Hotel & Hospitality Operations
- Government Agencies
- Allergy, Health & Wellness Institutions
- Architecture & Interior Design Firms
- Enclosed Greenhouse, Botanical & Sustainable Agriculture Operations
- Stables, Barns & Equestrian Facilities where Animal Allergy Defense is Required

KEY PRODUCT FEATURES

- 3-layer construction / *NanoScreen™* functional core between heavy-duty exterior screen faces
- Extremely high puncture resistance of 487 Newtons
- More than 4 times stronger than conventional metal window screen
- Packed on 34 lb / 59" Width easy to handle rolls for rapid delivery to any location for cut & mount
- In addition to mounting in traditional window & door frames, can be hung in workspaces and industrial spaces where protection from unwanted airborne particles is required
- Field operation mounting permits AllergyGuard to be hung or mounted by employee work teams using heavy-duty duct tape / Gorilla tape / or other improvised field attachment means / doorway entry flaps can be cut using a box knife
- Supports our environment and energy efficiency by reducing costly electricity consumption. Needless air conditioning expense can be eliminated for a significant portion of the year
- Engineered with BMT *NanoScreen™* Technology



TECHNICAL DATA & PACKING

BMT **AllergyGuard** Window Shield products with *NanoScreen*[™] technology are engineered using advanced nanotechnology filtration design:

- Blocks or restricts a wide range pollen, allergens, fly ash, agricultural & coal dust, bacteria, and droplets that can carry a range of virus particles.
- Excellent filtration efficiency engineered to block microscopic airborne particles using a *NanoScreen*[™] mesh range of 20-800 nanometers (0.02 – 0.8 microns).
- For reference: 1 mm = 1000 microns (µm) / 1 micron = 1000 nanometers
- CDC & WHO define the airborne droplets that carry most viruses including COVID-19 in a size range of 5,000-10,000 nanometers (*Note 1*) and most are unable to pass through BMT **AllergyGuard** filtration mesh range.
- CDC & public research now suggests that some micro virus nuclei airborne particles can be smaller (*Note 2*) and can pass through most personal protective products, so social distancing and hand washing remains critical (see references).
- High strength 3-layer construction delivers superior durability
- Washable with a gentle flow of water from any garden hose or with a soft rag
- Gray exterior face with black interior face for comfortable visibility looking out
- Available in 47" & 59" Roll Widths x 164 feet per roll
- Made with BMT *NanoScreen*[™] Technology
- Also available with FR / Flame Retardant & Anti-Static Performance Features

BMT AllergyGuard Window Shield

BMT Type 9000

Construction = 3-Layer heavy duty PVC-coated exterior face with integrated BMT *NanoScreen*[™] functional filtration core

Screen Weight = 170 GSM

2 Roll Width Options = 47" & 59"

Roll Length = 50 meters = 164 Linear Feet

Roll Weight / 47" Width = 10.2 kg = 22.5 lbs.

Roll Weight / 59" Width = 12.75 kg = 28.1 lbs.

Color = Outside Gray / Inside Black

FOB BMT Warehouse LA / Chicago / Dallas / New York / Lincolnton NC

Payment net 30 days from delivery

Subject to final confirmation by BMT

Just-In-Time program door deliveries from nationwide BMT warehouse locations are available under multi-month supply chain contracts. BMT trucking charges are subject to delivery destination & program volumes. Close-proximity new BMT warehouse setup is available for major program support.

REFERENCES

- https://english.elpais.com/society/2020-10-28/a-room-a-bar-and-a-class-how-the-coronavirus-is-spread-through-the-air.html?ssm=TW_CC
- CDC I.B.3.b. Droplet transmission. Ref: Par 2. <https://www.cdc.gov/infectioncontrol/guidelines/isolation/scientific-review.html>
- CDC I.B.3.b. Droplet transmission. Ref: Par 2. <https://www.cdc.gov/infectioncontrol/guidelines/isolation/scientific-review.html>
- [CDC recommends that people wear masks in public settings](https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html)
<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html>
- <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover-guidance.html#evidence-effectiveness>
- <https://www.cdc.gov/media/releases/2020/p0714-americans-to-wear-masks.html>
- Bourouiba, L. (2020). Turbulent Gas Clouds and Respiratory Pathogen Emissions: Potential Implications for Reducing Transmission of COVID-19. JAMA – Journal of the American Medical Association. American Medical Association.
- Duguid, J. P. (1946). The size and the duration of air-carriage of respiratory droplets and droplet-nuclei. Journal of Hygiene, 44(6), 471–479.
- Gralton, J., Tovey, E., McLaws, M. L., & Rawlinson, W. D. (2011, January). The role of particle size in aerosolized pathogen transmission: A review. Journal of Infection.
- Golberg, D. New York Presbyterian. Assistant Professor of Medicine at Columbia University <https://www.nyp.org/medicalgroups/hudsonvalley/for-patients/healthcare-articles/what-to-know-social-distancing>
- Werner E. Bischoff, Katrina Swett, Iris Leng, Timothy R. Peters, Exposure to Influenza Virus Aerosols During Routine Patient Care, The Journal of Infectious Diseases, Volume 207, Issue 7, 1 April 2013, Pages 1037–1046.
- van Doremalen, N., Bushmaker, T., Morris, D. H., Holbrook, M. G., Gamble, A., Williamson, B. N., ... Munster, V. J. (2020). Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1. New England Journal of Medicine.
- Gralton, J., & McLaws, M. L. (2010). Protecting healthcare workers from pandemic influenza: N95 or surgical masks? Critical Care Medicine. Lippincott Williams and Wilkins.
- ANNA BAŁAZY, MIKA TOIVOLA, TIINA REPONEN, ALBERT PODGÓRSKI, ANTHONY ZIMMER, SERGEY A. GRINSHPUN, Manikin-Based Performance Evaluation of N95 Filtering-Facepiece Respirators Challenged with Nanoparticles, The Annals of Occupational Hygiene, Volume 50, Issue 3, April 2006, Pages 259–269.

REFERENCES

Continued

- Zhu, N., Zhang, D., Wang, W., Li, X., Yang, B., Song, J., Tan, W. (2020). A novel coronavirus from patients with pneumonia in China, 2019. *New England Journal of Medicine*, 382(8), 727–733.
- Langrish, J. P., Mills, N. L., Chan, J. K. K., Leseman, D. L. A. C., Aitken, R. J., Fokkens, P. H. B., ... Jiang, L. (2009). Beneficial cardiovascular effects of reducing exposure to particulate air pollution with a simple facemask. *Particle and Fibre Toxicology*, 6.
- Nicas, M., Nazaroff, W. W., & Hubbard, A. (2005). Toward understanding the risk of secondary airborne infection: Emission of respirable pathogens. *Journal of Occupational and Environmental Hygiene*, 2(3), 143–154.
- van der Sande, M., Teunis, P., & Sabel, R. (2008). Professional and home-made face masks reduce exposure to respiratory infections among the general population

The global COVID-19 situation is fluid and much remains unknown about this virus and its behavior. New research is emerging constantly by the global scientific community. BMT will continue to make every effort to make the most current reference material available on this website.

BMT AllergyGuard™ Window Shield is engineered specifically for window screen applications with a need to balance airborne particle filtration with natural air flow. BMT AllergyGuard™, BMT VirusGuard™, and Nanoscreen™ products have not been tested to prevent or reduce clinical infection and are not intended to replace N95 or any other filtration media or medical product that must be specifically approved by the FDA for use as medical device or product.

It is always the responsibility of the end user of BMT filtration products to conduct independent testing and certification to ensure compliance with federal, state, and local safety requirements that may apply to the final manufactured products.

For more advanced PPE filtration products for personal safety masks and safety barrier screen applications, please visit <https://www.bmtvirusguard.com>

End