

# Graphene Protective Mask FFP2 RD



## ENHANCED PROTECTION IMPROVED COMFORT

A novel reusable mask that combines world class British technology with high quality PPE to help in the fight against viral transmission.

The four-ply arrangement offers users a beneficial level of protection against airborne allergens, pathogens, pollen and dust particles that are larger than 0.3 microns in size, providing a minimum level of filtration of 94%.

This construction results in excellent breathability and offers significant comfort when worn. The 'one size fits all' solution is enabled via adjustable tabs on the ear loop straps, providing improved comfort and support.

The mask is enhanced with a unique layer featuring an advanced graphene material, Nanene<sup>TM</sup> by Versarien, the world's first Verified Graphene Producer, certified by the Graphene Council.

## KEY ADVANTAGES

>94% air filtration

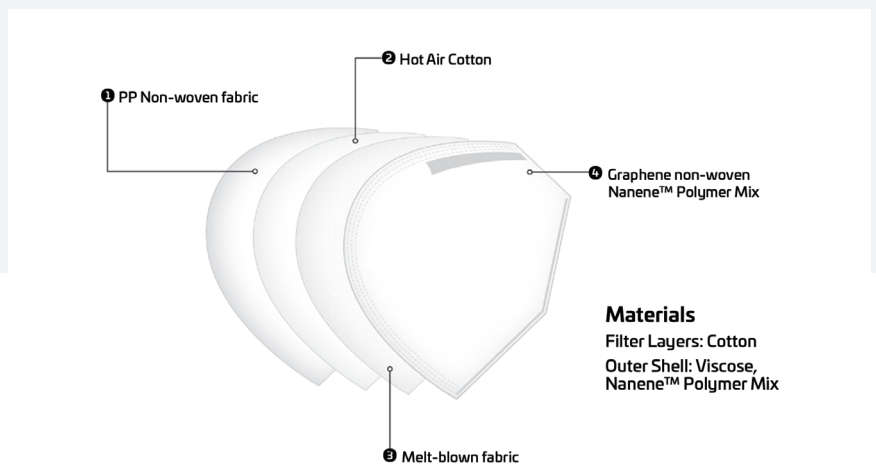
Certified Reusable

Wear for <8 Hours at a time (Clogging tested)

Fully adjustable nose strip & ear straps

No valve = 2-way protection

Graphene approved under REACH



## WHAT DOES FFP2 RD MEAN?

This FFP2 indicates that a filtering half mask (or half respirator) will prevent at least 94% of all particles larger than 0.3 microns in size from passing through it when worn correctly with a proper fit.

The 'R' stands for Reusable. This means that when worn and handled with care and cleaned through the recommended care instructions, this mask is certified to be reusable with no loss of filtration.

The 'D' stands for 'Dolomite Clogging' tested. This is the test method used to determine the usage life of particulate filters such as our FFP2-rated mask. If attained, this is an indicator that additional quality standards have been met, as the breathing resistance is rated highly allowing the mask to be comfortably worn over a long period of time.

## CERTIFICATION

This Graphene Protective Face Mask (FFP2 RD) meets the requirements of EN149:2001+A1:2009 and is CE-marked in accordance with the requirements of European Directive EU 2016-425.

This mask has also been certified to meet the requirements of KN95 standard in accordance with GB2626-2019.

# GENERAL PRODUCT SPECIFICATION

| TECHNICAL INDEX ANALYSIS          |                     |
|-----------------------------------|---------------------|
| <b>Purpose</b>                    | <b>Facial Mask</b>  |
| Specification                     | 15.2 x 11.3cm       |
| European Union Standard           | EN 149:2001+A1:2009 |
| Product Performance               | PFE≥94% FFP2 RD     |
| CE marking & notified body number | 0598                |

| CONTACT ANALYSIS OF MATERIAL                      |             |                                |
|---|-------------|--------------------------------|
| Raw Materials                                     | Content (%) | Weight (g)<br>[with packaging] |
| Outer layer - Graphene (Nanene™ enhanced polymer) | 28.6        | 3.146                          |
| PP non-woven fabric                               | 14.2        | 1.562                          |
| Melt-blown fabric                                 | 26.6        | 3.146                          |

## MANUFACTURER'S INSTRUCTIONS AND INFORMATION

Please read this User Information sheet carefully before using this product. This product complies with the requirements of EU Regulation (EU) 2016/425 for Personal Protective Equipment and meets the requirements of European standard EN 149:2001+A1:2009.

### 1. Check prior to use:

- The respirator must be selected properly for intended application.
- An individual risk assessment must be evaluated.
- Check that the respirator is undamaged with no visible defects.
- Check that the expiry date has not been reached (see the packaging).
- Check the protection class (FFP2) is appropriate for the environment and/or application the product used for.
- Do not use the mask if a defect is present or the expiry date has been exceeded.

### 2. Intended use of this PPE:

Application: Textile, mining, construction, iron and steel industries, car body preparation industry, woodworking, agricultural and horticultural activities, food industry, cutting and moulding of metals. Protects against dusts, mists and fumes containing calcium carbonate, clay, kaolin, cellulose, cotton, flour, ferrous metals, cement, sodium silicate, sulphur, glass fibers and plastics, hardwood, coal, quartz, non ferrous metals, copper, aluminium, barium, titanium, vanadium, chrome, manganese, molybdenum, vegetal and mineral oils, metal-working fluids (this list is non-exhaustive).

### 3. This product is designed to protect against these risks:

| Risk                    | Standard Clause                             | Assessment method   |
|-------------------------|---|---|
| Penetration of particle | EN 149:2001+A1:2009, clause 7.9.1 and 7.9.2 | Total inward leakage test, Penetration of filter material |

### 4. Limitations

This respirator is suitable for use in protection against the non-toxic solid and liquid aerosols. Do not use out of the scope of use defined in the warnings. Failure to properly use this product may result in serious health damage or death.

**FFP2:** Filter Efficiency 94%; Allocated Protection Factor (FPA) is 10. Examples of applications are Sanding of softwood, composite materials, rust, putty, plaster, plastics cutting, deburring, grinding, drilling of metal.

### What is Graphene?

Graphene, first isolated in 2004 by two researchers at the University of Manchester, has been hailed as "The wonder material that will revolutionise the future".

Graphene is the world's thinnest and strongest material with remarkable electrical, thermal, optical properties. While being 200 times stronger than steel it can be flexed and stretched.

### What is Nanene?

Nanene™ is a high quality few layer graphene produced using a patented manufacturing method. Developed on the University of Manchester campus and then scaled up in a dedicated production facility.

Nanene™ is a product that offers independently verified, real world application performance benefits.

## DONNING



1. Face the inside of the mask, take an ear band in each hand, hold the nose clip of the mask up.
2. Place the center of the nose strip over the bridge of the nose so as not to affect the field of vision.
3. Pull the ear band back around your ears. If the bands are too tight or too loose after putting on the mask, adjust the tab of the ear band to adjust the comfort.
4. Place two fingers in the middle of the nose strip and press inward while moving the fingertips laterally along the nose strip until it is completely pressed into the shape of the bridge of the nose.
5. Before entering the working area, the user must check the tightness between the mask and the face.

To check fit:

- a. Cover the mask with both hands to avoid affecting the position of the mask on the face.
- b. If air leaks from the bridge of the nose when breathing, readjust the nose clip in step 4. If air leaks from the edge of the mask, readjust the ear band. If a good seal is not achieved, repeat steps 1-4.
- c. If no leakage is felt, enter the work area.

## CLEANING

1. Clean hands effectively and dry before handling mask.
2. Hold the mask with the inside facing up. With the disinfectant spray nozzle pointing at the mask, hold the bottle perpendicular 10cm away from the mask, press the nozzle all the way down and release it five times whilst maintaining the distance from the mask at all times. **WARNING: Spraying in one position, too close to the mask or spraying multiple times will lead to over-wetting that may cause the mask to become ineffective.**
3. Turn over the mask and place on a clean, dry surface. Repeat spraying on outside of mask as described in Step 2.
4. Leave mask to air dry naturally for 1 hour at room temperature before storing away.

If the mask was not sprayed satisfactorily, wait for 1 hour before repeating the cleaning process.



A maximum of 10 cleaning cycles can be performed on the mask, after which the mask should be disposed of and replaced.

## DISCLAIMER

As with all protective face masks and Personal Protective Equipment (PPE) in general, use of this product does not guarantee that the user will not become exposed to any airborne bacteria and/or viral infections. However, the risk of such exposure will be significantly reduced by the use of this product in accordance with the instructions for use included in this document.

## DISINFECTANT SPRAY

### INFORMATION

Disinfectant

Antiseptic

Kills 99.99%  
of viruses and bacteria

PH balanced

Non-sting

Spray is effective when  
used on Versarien's Graphene  
Protective Face Mask.



The Versarien FFP2 RD Graphene Protective Face Masks have been specifically tested and certified with Salvesan™ 'Complete Infection Control' disinfectant spray from Aqualution®. Made from hypochlorous, the same chemical produced by the human immune system to fight infection, this spray contains no hazards, is alcohol-free and pH neutral so it won't dry or irritate the skin.

It comes in a handy 100ml travel-friendly bottle and is effective in seconds so can be used for a wide variety of other sanitising and disinfectant uses.

Complies with EU 528/2012, approved PT1-5. Tested to EN standards. BSEN 1276, 1656, 13704, 14204, 13727, 14476 and 13697.



## Graphene-MSK1

Available in 5 colours

**BLACK** 

**BLUE** 

**PINK** 

**RED** 

**YELLOW** 