

## Fit to Protect

3M<sup>™</sup> Particulate Respirators 8825+ and 8835+

3M has a long history of innovation – over 40 years in respiratory protection alone, and a passion for applying science to the development of safe, comfortable respirators. Now 3M has innovated further, applying the science of fit to build upon existing product benefits and taking the new 3M<sup>™</sup> Disposable Respirators 8825+ and 8835+ to new heights.

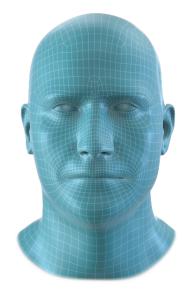


### The science of fit

In a busy world, "fit" has become part of the fabric of our lives. We strap infants into car seats. We adjust and buckle into bicycle helmets. We protect ourselves, and others, in many different ways. But, there's so much more to fit than meets the eye, especially when it comes to respiratory protection. At 3M, the Science of Fit is the technology and research behind making protective equipment fit comfortably.

Fortunately, the people behind Science of Fit aren't solely scientists – they are parents, siblings, husbands and wives. They live and breathe the importance of protection. They understand that respirators have to fit to do their job properly. And they know the respirator has to fit for the wearer to be adequately protected. Our state-of-the-art global labs also pave the way for important discoveries and advancements like our new flexible face seal on the 3M™ Particulate Respirator 8825+ and 8835+. This new feature is engineered for improved fit to more wearers' face shapes and sizes.





#### **Engineered for improved fit**

Our new flexible face seal has been specifically designed to fit a wider range of face shapes and sizes.

# The rigour behind the respirator

The 3M approach speaks for itself

#### **Design Approach**

At 3M, fit is incorporated into the entire product development process.

#### **Onsite Testing**

Fit testing at customer locations provides added assurance that our respirators will fit in real-world work settings.

#### Lab Testing

Every year, 3M tests thousands of people in our state-of-the-art fit-test labs around the world. This new feature is engineered for improved fit to more wearers' face shapes and sizes.

#### **Education & Training**

If a respirator is not worn correctly, or doesn't fit, it loses effectiveness. That's why we educate and train users on how to wear respirators properly and provide the tools to understand and execute proper fit.

# When breathing is easy, so is everything else

Workers want to achieve a good, consistent fit, while being comfortable; the 8835+ comes with a new construction of filter media, delivering a lower breathing resistance throughout the use of the product.

**3M's Advanced Electret Media** (**AEM**) is uniquely endowed with a charge to attract particles from a greater field of capture.

The strong AEM charge means less fibres are needed to efficiently capture the particles. This enables the filter media to have a more open structure to allow easier breathing.

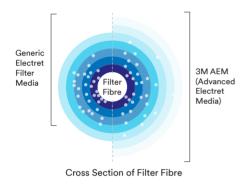




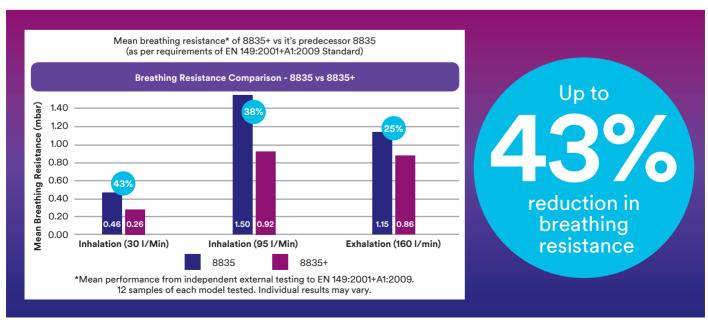
Illustration showing density of common competitive electrostatically charged filter media



Illustration showing open structure of 3M AEM filter

Adding the 3M™ Cool Flow™ Valve helps reduce breathing resistance further, giving warm, exhaled air more space to escape.





# The science of compatibility

Having a respirator that doesn't compromise the critical fit of other personal protective equipment is essential – for instance, wearing a well-fitted respirator and a pair of safety eyewear, where neither inhibits the other from doing its job effectively.



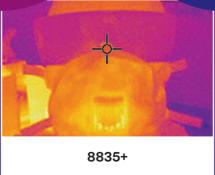
The 8825+/8835+ face seal doesn't just help to improve fit; the profile of the mask is designed to move air going through the filter media away from the face to limit the escape of exhaled air upwards, thereby reducing the fogging of eyewear.

The shaping of the faceseal, around the nose and across the cheekbones also gives room for 3M safety spectacles to sit, enhancing the combined compatibility.

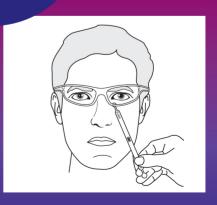
Designed to help reduce eyewear fogging

Designed to be compatible with 3M Safety Eyewear





3M is able to use thermal imaging cameras to detect and compare the levels of fogging generated while wearing different respirators.



3M has a unique Safety Eyewear fit test that helps us to assess the fit compatibility of respirators and eyewear.

# **Environmental** impact

A sustainability goal of 'PVC out' is now a priority for many markets and companies. The new family of 3M 8825+ and 8835+ respirators do not contain components made from metal or PVC and will allow our customers to continue to help make worker safety and comfort the priority but with proven lower environmental impact.

This helps our customers achieve company sustainability obligations as well as compliance for future changes in EU regulation on PVC.





<sup>&</sup>lt;sup>2</sup> 3M conducts Life Cycle Analysis (LCA) per the ISO 14040 standard and is available on request.

<sup>&</sup>lt;sup>3</sup> 18 tonnes of manufacturing waste prevented and 34 MWh of electricity saved based on total annual production.

### 3M<sup>™</sup> Particulate Respirators 8825+ and 8835+ overview

### EN 149:2001+A1:2009 approved

- FFP2 (8825+) and FFP3 (8835+) protection level options

#### Proprietary Soft Inner Face Seal





3M™ Cool Flow™ Valve







#### **Personal Safety Division**

3M United Kingdom PLC 3M Centre, Cain Road Bracknell, RG12 8HT Tel: 0870 60 800 60 www.3M.co.uk/8835+