SPECIFICATION FOR TEXTILE BARRIER FACE COVERINGS FAQs

ISSUE 1 - JUNE 2020

CONTENT

This 'Frequently Asked Questions' document has been prepared to supplement the BRC Specification for Textile Barrier Face Coverings.

1. WHY IS THIS SPECIFICATION NEEDED AS SURELY FACE COVERINGS ARE PPE?

No – there is a difference between the type of face masks that fall under either the EU's Personal Protective Equipment Regulation 2016/425 or the Medical Devices Regulation 2017/745 and the type of face coverings to which this specification applies.

Devices falling under the PPE Regulations are those which offer filtered protection against viruses and other infective agents. These are often referred to as N95 or FFP2 or FFP3 masks and are required to meet the requirements of EN 149 and be authorised by a Notified Body appointed under the PPE Regulations. The PPE Regulations clearly state that items which are 'intended for private use' and provide protection only against 'atmospheric conditions that are not of an extreme nature' are outside the scope of the PPE Regulations.

Medical or surgical masks are not PPE but are medical devices which are intended to protect the patient from infection rather than protecting the wearer. Such masks are required to comply with the requirements of EN 14683 and be CE marked.

Textile barrier face coverings for use by the general public are neither PPE nor medical devices and there is a need for a specification that will ensure an appropriate level of performance and safety for manufacturers, importers and retailers as required under the EU's General Product Safety Directive 2001/95/EC and under the UK's Consumer Rights Act 2015 which requires all goods to be fit for purpose. This is recognised in the guidance document issued by OPSS(i). The use of a performance specification such as this will assist with ensuring consistent product performance and will also contribute towards any defence of 'due diligence'.

The mandatory use by the general public of non-medical (and non-PPE) face coverings when using public transport in England was introduced with effect from 15th June 2020(i). The UK Government indicates that such face coverings would be "of the type you can easily make at home" but recognised that such face coverings offer "some, albeit limited, protection". This specification has been developed to provide a framework for the safety and manufacturing quality of mass manufactured textile face coverings intended to meet the demand from the general public for such products.

2. CAN THE SPECIFICATION ALSO BE USED FOR OTHER TYPES OF BARRIERS SUCH AS SNOODS, SCARVES, ETC?

Although such products are outside the scope of the specification, nevertheless the performance criteria contained in the specification can be used to evaluate whether these items afford a similar level of performance. Items such as snoods and scarves can provide an equivalent level of protection to the face coverings for which this specification has been written.

3. DOES THE SPECIFICATION COVER DISPOSABLE FACE COVERINGS?

Yes. The specification has been revised to facilitate its use for both single-use (disposable) and re-useable face coverings. For single-use face coverings some requirements for testing after multiple cleaning processes can be disregarded.

4. DOES THE SPECIFICATION COVER FACE COVERINGS INTENDED FOR USE BY CHILDREN?

Yes. The revised specification has included additional requirements and guidance on face coverings intended to be worn by children over the age of 2 years but under the age of 14 years.

Although the specification can be used for children as young as 2 years of age, consideration should be given to the likelihood of a child wearing the face covering correctly over the requisite period of time, their ability to apply or remove the face covering correctly without assistance and the likely behaviour of the intended age range of children. It is for each provider to decide on the appropriate age range for which a given face covering design is suitable.

5. WHY DOES THE SPECIFICATION NOT PROVIDE INFORMATION ON THE DESIGN AND/OR CHOICE OF MATERIALS TO BE USED?

Unlike other documents issued in response to the COVID-19 pandemic, it was a deliberate decision not to include this information as to do so could have been considered design restrictive. The specification has been designed to address outcomes (i.e. desired performance characteristics) rather than advise on how this should be achieved.

It is recognised that there is a multitude of potentially different designs and combinations of materials that are possible to meet the specification and there is insufficient data on what does or does not provide satisfactory conformity. To have included information on material selection might have led to an implication that other materials were not suitable which is not the intention.

For example a face covering comprising a two or more layers of material will perform differently from a similar face covering formed from a single layer of material. Therefore the properties associated with the material(s) used will be different but the overall performance should meet the same minimum requirements.

6. WHY DOES THE SPECIFICATION NOT FOLLOW THE SAME TESTING REGIME AS MEDICAL MASKS AND/OR PPE?

The tests specified for PPE and/or medical masks is very specialised and is only available from a relatively small number of laboratories. Furthermore the cost of the testing can be quite expensive. In addition, the global increase in demand for testing of PPE and/or medical masks has meant that there is significantly increased demand on these laboratories leading to extended lead times for test results which would impact on the ability to place non-PPE/non-medical products on the market as priority is being given to testing of PPE or medical devices.

It was a conscious decision to therefore utilise tests that are more widely available from textile testing laboratories so as to facilitate a less expensive and more rapid testing service.

BRC are cognizant of work currently being undertaken in Europe to develop a performance specification that can attain consensus approval throughout Europe. Initial developments in this work are based around tests used for medical masks and, in the opinion of BRC, the requirements associated with these tests are too onerous for face coverings of the type currently being advocated by UK Government. BRC will continue to engage with UK Government and with the appropriate standardisation bodies to pursue a specification that is appropriate but which can achieve consensus approval.

BRC - SPECIFICATION FOR TEXTILE BARRIER FACE COVERINGS FREQUENTLY ASKED QUESTIONS

7. HOW WERE THE PERFORMANCE LIMITS CHOSEN?

The performance limits are based of typical UK retailer performance requirements for apparel and other textile articles. The performance requirements are comprised of some tests that relate to breathability and liquid penetration, some chemical safety tests and some test that relate to quality assurance (i.e. fitness for purpose). These have been deliberately selected to address the perceived likely issues that might occur during the lifetime of the item.

Other tests commonly associated with textile articles have been deliberately omitted as these are deemed not relevant to the performance of the face covering and/or may be difficult to perform on finished articles due to their limited size.

8. HOW WAS THE AIR PERMEABILITY (BREATHABILITY) LIMIT CHOSEN?

The air permeability limit is based on what has become a de facto standard applicable to the hoods of children's coats, etc so as to avoid the risk of suffocation. It is important that the face covering permits the ingress and egress of air whilst not being so open that it permits the ingress of liquid droplets or increased risk of viral penetration. However, it is not practical to insist that materials are used that could protect against the COVD-19 virus (approx. 0.3 microns in size) as this would severely limit the choice of materials and preclude most fashion fabrics.

9. WHY HAVE REQUIREMENTS FOR LIQUID RESISTANCE BEEN INCLUDED?

Two different requirements have been included - aqueous liquid repellency which is a simple objective test to establish the ability of outermost layer of the face covering to withstand liquid ingress (absorption) and hydrostatic head (water penetration) which measures the pressure at which water penetrates through the outermost fabric.

These two tests are important to ensure that the face covering does not easily absorb liquid droplets including from rainfall (important so that the mask does not become easily saturated when being worn outside during inclement weather) and also to establish a performance level consistent with that applicable to protective clothing against chemicals (BS EN 14325:2018 clause 4.4). The need for an element of water repellency in cloth face coverings has appeared within recent articles published in The Lancet and in the British Medical Journal(v) as a humid environment within the face covering can act as a breeding ground for the COVID-19 virus and can lead to exposure of the wearer to an increased viral load.

10. WHY HAS A WASHING TEMPERATURE OF 60°C BEEN CHOSEN?

Current scientific advice is that the COVID-19 virus is sensitive to heat. Washing at a temperature of 70°C renders the virus inactive within 5 minutes (i),(i) whereas washing at

40 °C (normal wash temperature for most apparel) leaves detectable traces of the virus for up to 2 days after laundering with a half-life of the virus of approximately 24 hours. It has therefore been decided to include a minimum requirement that articles are able to withstand repeated laundering at 60 °C. It is acknowledged that the use of a wash temperature of 60 °C is higher than is used in most households in the UK for apparel and that the use of this increased temperature may limit the choice of materials and/or dyes/printing inks for which temperature may adversely affect colour fastness and/or dimensional stability.

However, it is also recognised that current scientific advice states that washing hands with soap is effective at rendering the virus inactive. Whilst no research has yet been published on the efficacy of laundry detergents at different temperatures, nevertheless it is possible that laundering using detergent, especially one containing a bleaching agent, may be effective at 40 °C. However detergents containing bleaching agents may have undesirable effects on the colour fastness of some textiles, even at 40 °C. Therefore, as and when research indicates that the use of lower wash temperatures with typical laundry detergents is effective in rendering the virus inactive so the specification will be revised to reflect the new scientific evidence.

For single-use (disposable) face coverings, testing after multiple laundering is not required.

11. WHY DOES THE SPECIFICATION USE MULTIPLE WASHES?

Re-useable face coverings are intended to be worn and then laundered on multiple occasions. It is therefore necessary to ensure that the performance characteristics present when a face covering is new are not lost due to the effect of repeated laundering, This includes ensuring that the breathability and liquid resistance characteristics are not significantly degraded.

The use of 5 laundering cycles is consistent with pre-treatments used in other performance specifications and particularly those associated with PPE and medical devices.

Note: It is known that certain finishes, both chemical or mechanically applied, can be degraded as a result of repeated laundering.

12. WHY HAVE COLOUR FASTNESS TESTS BEEN INCLUDED?

The face coverings will be sold direct to the consumer and as such as subject to the normal rules applicable i.e. fitness for purpose including durability. In particular this means that the materials should not adversely affect other items including clothing, whether during use or during the aftercare processes. In addition, the specification is intended for face coverings which will employ 'fashion' fabrics which are dyed or printed and there is a potential risk of loose dyestuffs causing cross-staining of other textiles. Therefore colour fastness tests have been included as a means of offering some assurance regarding the potential risks of such occurrence.

In addition, colour fastness to water has been selected in preference to colour fastness to perspiration as there is technical evidence and experience that the colour fastness to water test is more sensitive at identifying migrant dyestuff than colour fastness to perspiration.

13. WHY HAVE PH AND FORMALDEHYDE TESTS BEEN INCLUDED?

The face coverings are intended to be worn for prolonged periods in direct contact with the skin. The presence of any residual chemicals from fabric manufacturing may cause skin irritation to anyone who is sensitive to acidic or alkalinic conditions. pH is a simple test to determine whether an aqueous extract indicates residual chemicals to be present outside what are considered to be the 'safe zone'. The permitted range for pH is consistent with restricted substance programmes such as Oeko-Tex and with existing UK retailer performance specifications.

Formaldehyde is a substance that with effect from November 2020 will be included as a mandatory requirement under EU REACh Regulations Annex XVII Entry 72. However, under Entry 72 the permitted levels for free and hydrolysed formaldehyde is 75 mg/kg. Other specifications, including many UK Retailers restricted substance lists, opt to set the limit at a lower value of 20 mg/kg which is the detection limit according to BS EN 14184-1. It has therefore been decided that as the face coverings are in close proximity to the mouth and nose, the use of the lower limit is more appropriate.

At this time, the inclusion of a requirement for released formaldehyde has not been included. However, attention is drawn to the need to ensure that released formaldehyde should also be controlled but the use of formaldehyde based chemicals is not recommended.

14. WHY HAS A TEST FOR MIGRATION AFTER EXTRACTION USING ARTIFICIAL SALIVA BEEN INCLUDED?

The inner surface of the face covering will be in close proximity to or direct contact with the mouth and potentially the tongue. There is therefore a perceived risk that such contact can cause migration of certain elements via the saliva and which can then be absorbed into the body via the mucous membranes of the mouth.

Tests such as EN 71-3 are intended to address ingestion into the stomach whereas EN 16711-2 is intended for assessing migration due to prolonged skin contact where the transfer agent is human perspiration. However, due to the proximity to the mouth it is considered that the test using artificial saliva is more appropriate than either of the other two tests and the limits set are based on those given in the EU REACh Regulations for lead release.

15. WHY IS USE ONLY RECOMMENDED FOR A MAXIMUM OF 4 HOURS?

Face coverings covered by the BRC Specification are intended to be worn whilst travelling, in public places and even whilst at work. It is highly likely that the duration of time spent in a public place or spent travelling will be short but might be extended if combined with time spent in the workplace. Assuming a person is working full-time and thus working an approximately 8-hour day, at some point during the day they will need to take one or more rest breaks during which time they may consume food and/or drink. At such times, this will necessitate the removal of the face covering in order to eat or drink.

The process of removal of the face covering, temporary storage and then replacement of the face covering increases the potential risk of contamination with the virus and therefore the continued use of the same face covering is contrary to UK Government advice. It is for this reason primarily that a nominal 4-hour limit is recommended and that once the face covering is removed it is placed directly into a bag until it can be laundered and a fresh face covering used thereafter.

(Note: EU Working Time Regulations require workers to have at least one break every 6 hours.)

16. IS THERE A 'QUALITY MARK' THAT I CAN APPLY TO MY PRODUCTS IF THEY MEET THIS SPECIFICATION?

No. At the present time there is no universal 'quality mark' that can be applied to face coverings. However, BRC is engaged in promoting the adoption of the BRC Specification through discussions with other relevant organisations including UK Government's Office for Product Safety and Standards (OPSS) and BSI.

i. *'Guidance for manufacturers and makers of face coverings to comply with the General Product Safety Regulations 2002, Version 1, May 2020, issued by Office for Product Safety & Standards*

ii. *UK Government Daily Briefing, 4th June 2020*

iii. *iii WHO Interim Guidance "Home care for patients with COVID-19 presenting mild symptoms and management of their contacts, 17 March 2020*

iv. *iv The Lancet Microbe Vol 1 Issue 1 E10, May 1, 2010 Stability of SARS-CoV-2 in different environmental conditions)*

v. *v thebmj, 30 May 2020, p324ff*

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T: 0113 2488830
E: CUSTOMERSERVICES@HSTTS.CO.UK

BRITISH RETAIL CONSORTIUM
2 London Bridge, London SE1 9RA
+44 (0)20 7854 8900 | info@brc.org.uk | brc.org.uk
British Retail Consortium – a company limited by guarantee
Registered in England and Wales No. 405720 V2