



## FAQs on the TMC Test Method

### 1. There seems to be a lot of different terminology used around test methods for fibre release. What do they all mean?

In the research and development of a test method to assess fibre release, there have been various different methods employed. The TMC are working to align testing and methodology used for comparison and reliability.

The TMC test method, as described in the attached paper, is referred to by different names due to the type of method or filtering technique used within it.

The below are used to describe the TMC test method but are not specific to the TMC test method:

- Gravimetric Method – relating to quantification of the mass measurement.
- Filtration Method – relating to the filtering method separating textile loss from the wash water.

### 2. Why has a lab canister rather than a domestic washing machine been used in this method?

Using lab canisters is a timely and efficient method in use for colour fastness testing and as a recognised ISO 105-C06 method. Working with wash canisters enables small scale testing omitting issues filtering large volumes of wash water from domestic machines and minimising contamination issues from wash loads.

### 3. What correlation work has been done to a domestic washing machine?

There is a lot of conversation about correlation between the canister and washing machine methods, and a few research studies into this area. TMC has not conducted work here due to the large number of variables in domestic machines including type, speed, temperature and load variation. The TMC method allows a comparative study between different fabrics and it is this specific learning which is crucial to make root cause change.

### 4. Why did you choose a weight mass rather than a counting method to appraise amount of fibre loss?

Counting methods differ in the method, area analysed and reliability. Methodologies in previous studies have assessed a select area of the filter paper and scaled the count for all fibre loss from the specimen. We do not see this as a true representation of the fibre loss. This has been further discussed in Tiffin et al. (2021). Calculating the weight mass gives an understanding on the loss of fibre from the textile and a reproducible quantification method.

\* Tiffin et al. (2021). Reliable quantification of microplastic release from the domestic laundry of textile fabrics. Journal of the Textile Institute.

### 5. How can I read the results and know what it means as far as good or bad loss?

Although you can use your test results to look comparably at your material portfolio, the true value in reviewing results comes when they can be reviewed as part of a much larger data set. TMC has developed a data portal where all member results are housed which in turn supports the deeper data analysis required to understand this complex

topic. TMC Membership enquiries can be directed [through our contact page](#) for anybody requiring this level of data understanding and support.

## **6. What has given TMC the confidence that this method is credible?**

There have been various stages that has provided the credibility required on this test methodology and to ensure it is fit for purpose:

- Developed from a credible textile resource (University of Leeds) and aligned as part of various alignment conversations including but not exclusive to [CIA](#), and AATCC.
- Undergone two round robin exercises across 14+ different global labs to ensure reproducibility and repeatability.
- TMC has been collecting testing data through its members for a year and currently has close to 300 fabrics specifications submitted for testing.
- Lab training and accreditation has been provided through TMC to testing labs.

## **7. How does this method align with other methods globally (i.e. AATCC, CEN etc?)**

TMC supports developing a global standard to measure fibre release, and as such is working in close alignment with other testing organisation who are developing standards. Due to regional considerations, there are likely to be a few minor differences between methods (based on choices allowed within the method). In the longer-term further testing is needed to establish to what degree (if any) minor differences affect results. TMC continues to work with organisations on these topics We are currently involved with the Round Robin 3 testing organised by the CIA.