



Report on the evolution of abrasion test for mechanical gloves in EN388

Initially, the EN388 standard has been published in 1994. This document included an abrasion test for gloves designed to protect against mechanical risk. In page 7, an abrasive paper was defined. This consumable, necessary to perform the test, was a Saint Gobain product.

Ref : OAKEY glass quality cabinet paper grade F2, gritt 100

The standard has been revised in 2003. But the changes did not concern the abrasion test. The first problems appeared in 2007, when laboratories noticed a high variability in the performance of the paper "OAKEY".

After different contacts with the manufacturer, information was given. The English plant producing the abrasive paper has been closed and the production was performed in South Africa. When CEN TC 162 safety garment, WG8 gloves, PG2 mechanical risks, started the revision of EN 388 in 2010, the convenor of the group Mr Van Duren contacted the company Saint Gobain to find a technical solution to this variability. The answer is given in CEN TC 162 WG8 PG2 N036 (see in annex 1) : this abrasive paper cannot be guaranteed.

The level of performance of safety gloves to abrasion test was variable depending of the abrasive paper batches. Therefore, the standardisation group has concentrated his action on the research of a new paper, consistent and with properties equivalent to the "OAKEY" of 1994.

Based on extensive investigation and various lab tests performed by WG8/PG2; a suitable alternative has now been found – called Klingspor PL31B Gritt 180 – which has proven to provide equivalent results compared to the data that were obtained with some still available Oakey papers. These proofs are documented as per documents CEN/TC162/WG8/PG2/N051 & N061 (see in annex 2&3).

In view of this, Notified Bodies are now encouraged to start using this Klingspor material for any future EN 388 abrasion tests – as outlined per document CEN/TC162/WG8/PG2/N066 (see in annex 4).

After discussion, it is highly likely that the company James Heal in UK, Martindale machine manufacturer, will propose a new service. James Heal will develop a control procedure and will sell abrasive paper with a certificate of conformity. This service will be available soon, see letter CEN/TC162/WG8/PG2/N068 (see in annex 5).

TC162/WG8/PG2 is therefore convinced that the use of this Klingspor PL31B Gritt 180, is now the perfect solution as replacement for the Oakey paper and will therefore introduce the use of this paper as reference for the abrasion test method at the next revision stage of EN388:2003.

In the meantime, TC162 & VG5 encourages each lab, who is testing as per EN 388:2003, to use this Klingspor PL31B Gritt 180 until the EN 388 is fully revised and adopted by all member States.

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Product	Klingspor PL31B 180 grit 230 x 280 mm
Stock Codes	701-240
Batch Number	123456
Standard(s)	Endorsed by CEN TC162/WG8/PG2 for use in EN 388

Our Guarantee

This product has been tested on a James Heal, calibrated Martindale, in a standard conditioned environment of 20°C and 65% RH. The test follows the principals of EN388.


The pass/fail criterion is based on the percentage mass loss of a PVC glove claiming conformity with EN388, over a predefined number of rubs on the Martindale abrasion instrument.

We guarantee the loss in mass caused by abrasion against the Klingspor will be 6% ± 2% on every batch supplied.

Traceable Batch Numbers

Packaging is designed to protect the products in transit and, in many cases, to make them easy to dispense and to use.

The content of each package is labelled with a precise description, which includes a unique and traceable batch number. Should you have a query about the product, please advise this batch number.

Signature 

Peter Goodwin, Technical Manager