



ISO/TC 219/WG 1
Textile floor coverings

Email of secretary:
Convenorship: NBN (Belgium)

Presentation by Jo Wynendaele on new studs WG1meeting 042016 Delft

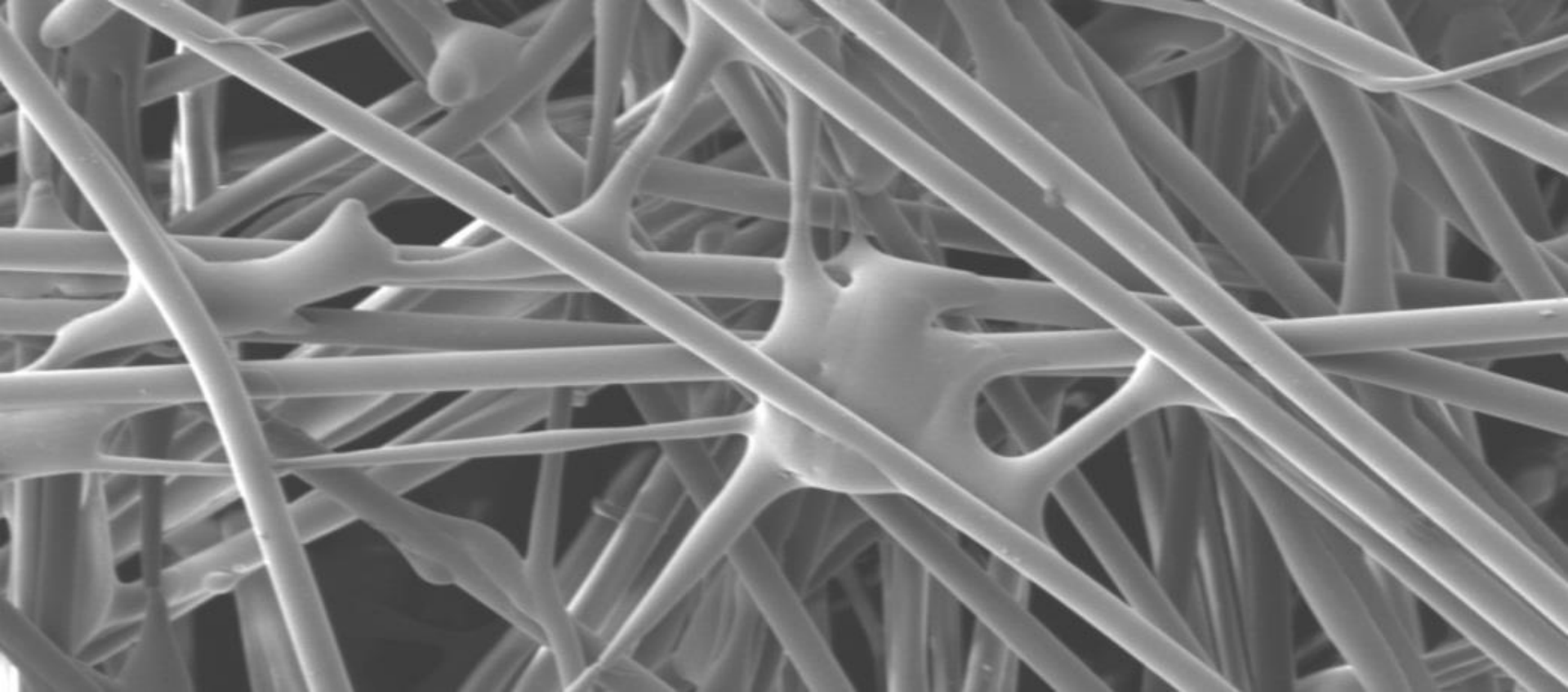
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Background:

Committee URL: <http://isotc.iso.org/livelink/livelink/open/tc219wg1>



New studs

ISO WG 1 4-04-2016, Delft (NL)

Jo Wynendaele

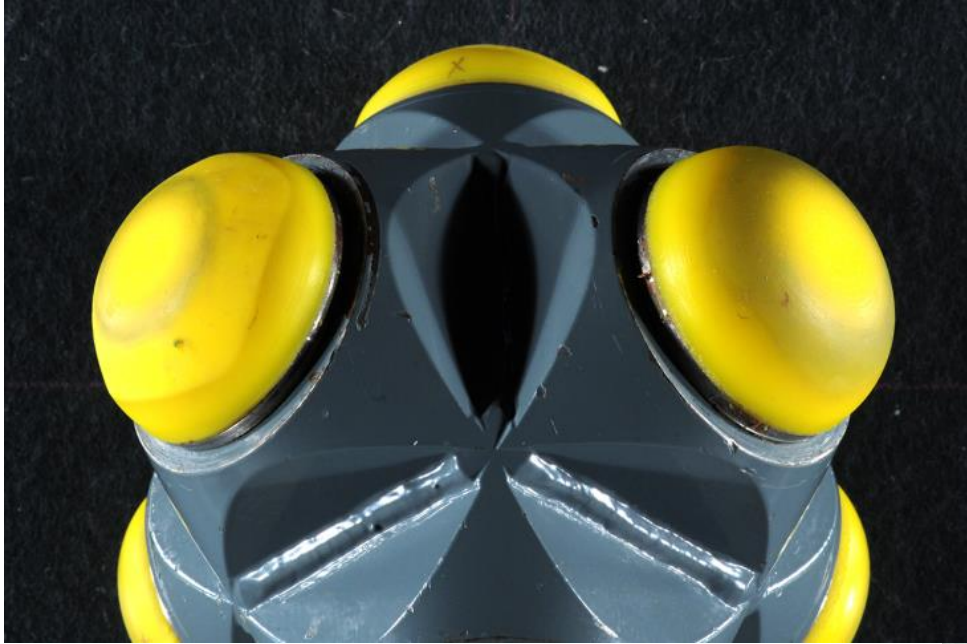
New studs

- Main objective to avoid:
 - Batch differences
 - Hardness differences
 - Wear of studs
 - Interaction with spin finish on carpets
- Vetterman Rubber Studs are/will no longer be available

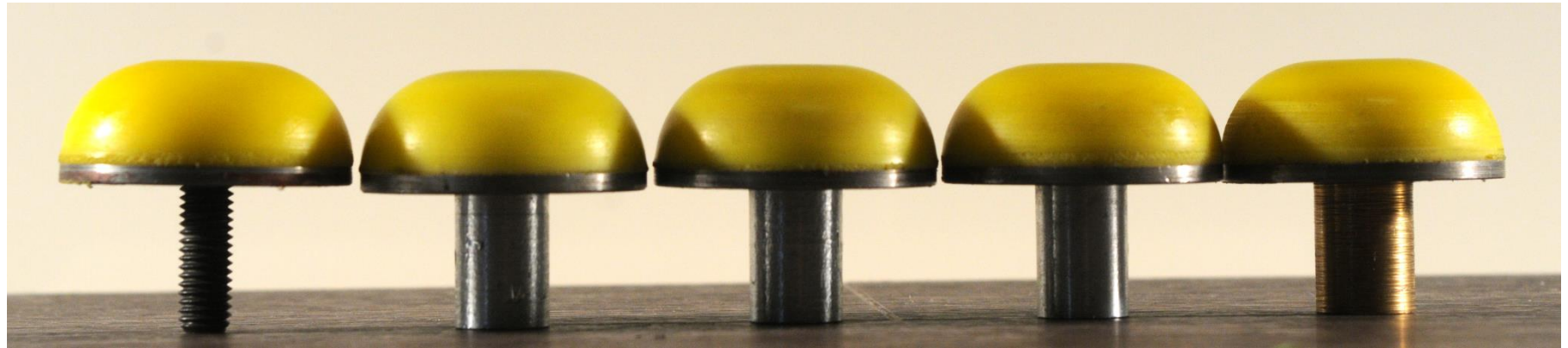
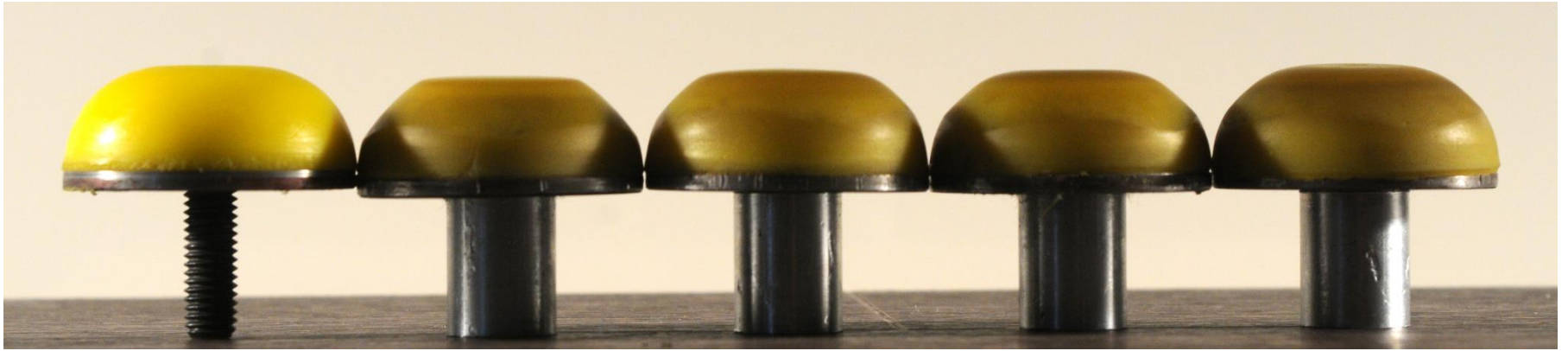
Vetterman: stainless steel-studs



Hexapod: wear of studs (1)



Hexapod: wear of studs (2)



Hexapod: carved stainless steel-studs



Test set-up

- Vetterman
 - Rubber 5000 → stainless steel 1000
 - Rubber 20,000 → stainless steel 2000
- Hexapod
 - PU 4000 → carved stainless steel 1000
 - PU 12.000 → carved stainless steel 4000

Carpet samples

- 26 carpet qualities
 - Different carpet styles
 - Tuft: shaggy, loop pile, cut pile
 - Woven: axminster, wilton, flat
 - Different pile composition
 - PA6 and P6.6.
 - PP
 - Sisal
 - 100% Wool and 80/20 wool/PA

Vetterman: Rubber versus Steel (26)

- Short term
 - 91% same grading (variation $\pm 0,5$ allowed)
 - 9% 1 grade in favour of new
- Long term
 - 77% same grading (variation $\pm 0,5$ allowed)
 - 23% 1 grade in favour of new
- **Good correlation short term**
- **Long term in favour of new studs**

Hexapod: PU versus carved steel (25)

- Short term
 - 80% same grading (variation $\pm 0,5$ allowed)
 - 20% 1 grade in favour of Hnew
- Long term
 - 84% same grading (variation $\pm 0,5$ allowed)
 - 8% 1 grade in favour of Hnew
- **Good correlation short and long term**

Current situation:

Vetterman rubber versus Hexapod PU (25)

- Short term
 - 86% same grading (variation $\pm 0,5$ allowed)
 - 9% 1 grade in favour of Hexapod
 - 5% 1 grade in favour of Vetterman
- Long term
 - 64% same grading (variation $\pm 0,5$ allowed)
 - 8% 1 grade in favour of Hexapod
 - 28% 1 grade in favour of Vetterman
- **Good correlation short term**
- **Long term in favour of Vetterman**

New situation:

Vetterman steel versus Hexapod carved steel (25)

- Short term
 - 88% same grading (variation $\pm 0,5$ allowed)
 - 8% 1 grade in favour of Hexapod
 - 4% 1 grade in favour of Vetterman
- Long term
 - 76% same grading (variation $\pm 0,5$ allowed)
 - 20% 1 grade in favour of Vetterman
- **Good correlation short term**
- **Long term in favour of Vetterman**

Actions

- Perform new trials on same qualities for long term Vetterman
 - V2000  V2500
 - performed on 3 qualities
 - no change in grading
 - V2000  V3000
 - performed on 11 qualities
 - 6 qualities same grading
 - 5 qualities too severe

Outcome

- Steel studs versus synthetic studs
 - good correlation in short term
 - Long term slightly in favour of steel
- Correlation Vetterman-Hexapod
 - same correlation short term
 - Enhanced correlation long term with new studs

Benefits

- No batch differences
- Longer life time of stud
- Reduce test time
- Enhance correlation
- ...



Install a NWIP to replace synthetic studs by stainless steel studs

Thanks to

- Vector Systems
 - Cindy / Wendy
- Interface
- Desso
- ECRA
- Centexbel
 - Petra / Alex
- UGent
 - Didier / Ka Chi