

Description of dataset containing video files

[materials accompanying the thesis "Animating matter: A material-led exploration into the kinetic potential of nylon monofilament" (Piñeyro, 2020)]

This dataset contains video recordings of the heat-responsive behaviour of the monofilament morphologies with kinetic capacity that are introduced through the doctoral thesis *Animating matter: A material-led exploration into the kinetic potential of nylon monofilament* (Piñeyro, 2020). These video-recording clips compose the "movies" and "clip-charts" accompanying the thesis.

Files under the folder "movies" correspond to the intuitive, improvisatory and open-ended exploration of the transformation of twisted and coiled polymeric actuators (Haines et al., 2014) into alternative morphologies, and that of their heat-responsive behaviour under a range of conditions. In these movies, emerging morphologies interact with heat instantiated through hot air, hot water and a hot surface. These movies accompany Chapter 1: Introduction, Chapter 3: A material encounter, Chapter 6: Revealing monofilament morphologies with heat-responsive kinetic capacity, Chapter 8: Kinetic assemblies, and Appendix A: Complementary information to Chapters 3 and 6. Please, refer to these chapters for a description of each movie.

Files under the folder "clip-charts" provide visual descriptions of the behaviour of each morphology under specific conditions. These clips – provided as single files here – are organized in the thesis into charts, grouping them: a) by morphological kind, and b) by activation set-up (see pp.105 and 62-63 of the thesis, respectively, for a description of these terms; and Appendix B, section B.5.3, for a description of the grouping rationale). Files under this folder indicate the numbers of the clip-charts in which each clip is included. Clip-charts accompany Chapter 7: Formalising formation processes for monofilament morphologies with heat-responsive kinetic capacity, and Appendix B: Complementary information to Chapters 7 and 8.

The established groupings invite comparison of the behaviour of a particular morphology under the different activation set-ups, as well as that of the different morphologies under the same set-up. Together with the recipes for the formation of monofilament morphologies with heat-responsive kinetic capacity, provided in the thesis (Appendix C), these clip-charts aim at supporting future approaches to the exploration of the design potential of these morphologies.