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This work deals with investigation of the stability over time and surface cooperativeness of a calibration artefact intended for optical scanner verification. A replica step gauge with 11 grooves, made of bisacryl material for dental applications (luxabite) and previously fabricated was studied. The stability over time of the step gauge was evaluated by repetitive measurement campaigns over a period of eight months, using measurements taken with a tactile CMM and with an optical scanner. Surface cooperativeness was investigated by measuring artefact grooves and pitch and comparing results with tactile measurements. Results demonstrate good stability of the step gauge and material transparency good cooperativeness, which is compensated when a unidirectional strategy is followed.

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