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Evaluation of Tyfo W FibrWrap System for In-plane Strengthening of Masonry Walls

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A qualification test was conducted for a Tyfo Fibrwrap System used to coat unreinforced masonry walls in order to enhance their seismic strength and deformation capacities. The second phase of the test program involved cyclic testing of two conventional masonry wall specimens, one of which was coated with the Tyfo System, under in-plane loading. The report presents the results of this second phase describing the test conditions and performance of the walls without and with the Fibrwrap. The test results show that the in-plane force-displacement envelopes of reinforced and bare test specimens, it is apparent that the Tyfo System enhances both the in-plane strength and deformation capacities of masonry wall panels in the ultimate limit state. It also increases the hysteretic energy dissipation of the masonry wall specimen thus improving the seismic performance.