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Brazilian disc testing of a UK PBX through the glass transition temperature DAVID WILLIAMSON, STUART PALMER, WILLIAM PROUD, University of Cambridge, REBECCA GOVIER, AWE, SMF GROUP TEAM, AWE TEAM — Previous research at the Cavendish Laboratory has shown a change in failure mechanism from that of intergranular to transgranular when PBX Brazilian disc specimens are tested below the glass transition condition of their binder system. The current study builds on this early work, illustrating how the strengths of the samples change as a function of temperature. The increase in strength at low temperatures is identified with the stiffening of the polymer binder as the glass transition condition is approached.

David Williamson
University of Cambridge

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