Peel Resistance of Adhesive Bonds Accurately Measured

The problem: The strength of the adhesive bond between the facing and lower layer of a laminated material may be tested by applying a peel force to the facing of the laminate with a tensile testing machine. For accurate results, the peel force must be perpendicular to the surface of the laminate.

The solution: A jig that maintains the laminate in proper position for continuous application of a perpendicular peel force by a standard tensile testing machine.

How it’s done: The testing jig consists of a base plate and two vertical brackets holding five polished stainless steel rollers. These rollers support the laminate and constrain it to move horizontally while maintaining the free end of the facing at a constant 90° angle during application of the peel force. The height of the lower two rollers is adjustable to accommodate laminates of different thickness.

Note: Inquiries concerning this invention may be directed to:

Technology Utilization Officer
Goddard Space Flight Center
Greenbelt, Maryland, 20771
Reference: B65-10173

Patent status: NASA encourages the immediate commercial use of this invention. Inquiries about obtaining rights for its commercial use may be made to NASA, Code AGP, Washington, D.C., 20546.

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