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Comportement asymptotique d'un corps élastique dont une surface présente de petites zones de collage. (Asymptotic behaviour of an elastic body with a surface having small stucked regions). (French) [Zbl 0602.73019](#)

C. R. Acad. Sci., Paris, Sér. II 304, 195-198 (1987).

We consider an elastic body, a surface of which is partially stucked to a fixed plane. The stucked regions have a diameter ϵ and the distance between two neighbouring zones is η . The asymptotically critical size is $\epsilon \sim \eta^2$. In this case the limit behaviour of the body is described by a boundary condition which is intermediate between the perfect sticking and unsticking.

MSC:

[74S30](#) Other numerical methods in solid mechanics (MSC2010)

[35A15](#) Variational methods applied to PDEs

[74A55](#) Theories of friction (tribology)

[74M15](#) Contact in solid mechanics

Cited in **4** Documents

Keywords:

[limit behaviour](#); [perfect sticking](#); [unsticking](#)