

THERMAL TREATMENT TESTING

Tests should be of Silica minerals encompassing considerable geography and diverse geological occurrences these representing a variety of textures ranging from the very glassy (obsidian, opal and Quartz crystal) to these quite granular but still have the properties of isotrophism (quartzites and basalts).

1" X 1" X  $\frac{1}{4}$ "

Samples to be large enough to saw 24, ~~one-inch-by-one-quarter-inch-thick~~ tabular pieces and still retain at least half of the original sample for control. One inch pieces will speed up testing time. altho some tests should be done with large pieces when control is stabilized. The samples of each mineral should be homogeneous as there may be texture variations in the same piece of material. The range of temperatures should be from the first color change until the final breakdown of the material.

ARTIFICIAL FRACTURE TESTING

1. Behavior of cone of force
2. Velocity of percussor as related to its weight
3. Inertia and support, fulcrum, fracture from end shock
4. Interval of contact between percussor and objective piece.
5. Downward force recording angles progressively note ing character changes of cone.
6. Outward force
7. Ratio of both downward and outward forces
8. Bi-directional forces
9. Surface character, (a) Natural etching  
(b) Artificial grinding with diverse sizes and kinds of abraisives.  
(c) Polished  
(d) Cortex  
(e) Freed Platform  
(f) Scored surface
10. Contact area of applied force.
11. Pressure
12. Percussion
13. Indirect percussion
14. Yield of compression of material used for the application of force.
15. The amount of foot pounds of force to exceed the elastic limit of a definite area.
16. Size and type of platform as related to the area to be fractured without platform collapse.
17. Record of the angles of applied force.
18. Flake termination
19. Flake curvature
20. Flake truncation (a) Hinge  
(b) Step  
(c) Feathered  
(e) Over and behind Fr. (Otre Passe)  
(f)

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