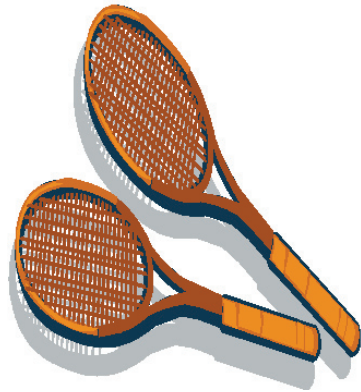


Clay Sports Surfaces

Clay is used on baseball and softball fields in the base paths, batter's boxes, bullpens, pitcher's mounds, and practice areas. Clay and clay composites are also used on boccie courts, tennis courts, horseshoe pits, track-and-field event areas, and on horse racing tracks and bridle paths.



Clay, by itself, is not an ideal surface for play. In the early days of baseball, for example, the clay infield would become as hard as concrete in the summer heat, and a slippery quagmire after a rain storm. Without constant care, deep ruts would form in the base paths, in the batter's box, and on the pitcher's mound.

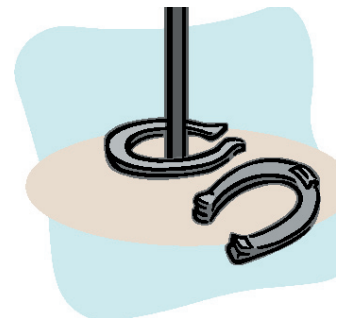


A better clay surface is made up not just of clay, but of a mixture of clay, sand, and silt; the mixture can be screened and blended to optimize its performance. When first introduced, this clay/sand/silt mixture represented a vast improvement over the older solid clay surface used on playing fields and tracks, although it still tends to form ruts and can become slick when wet. This mixture is the most popular clay topping in use today.



Another improvement in the evolution of field clay is calcined clay, which is clay that has been heated in a furnace at about 2,000° F. Once calcined, the clay is ground into a powder that readily absorbs water, reduces soil compaction, and will not stick to cleats or hooves. This type of product is used as an infield conditioner and to dry wet spots on a field or track quickly. Flakes of the mineral vermiculite that have gone through the process of exfoliation—a rapid heating process similar to the one for calcined clay (and frequently sold under the more common name, “kitty litter”)—may also be used to dry wet spots quickly.

On the best playing fields, a clay composite product is used. This product is made of clay and polymer layers that are formed around individual grains of sand. Vermiculite may also be added as a soil conditioner. The resulting material is nonabrasive, compacts easily, does not stick to cleats or hooves, and dries fast. It is often used in heavy-wear areas.



For more information about clays, see the USGS minerals information Web site at <http://minerals.usgs.gov/minerals>.

Sources

Grassland Equipment & Irrigation Corporation, 2004, Beam clay baseball diamond mix (http://www.grasslandcorp.com/partac_peat.html)

Hoover Enterprises, Inc., 2004, Baseball/softball—Field maintenance equipment (<http://www.hooverfence.com/sports/baseball-softball/materials.htm>)

Miller, Grady L., 2001, Baseball field layout and construction (<http://edis.ifas.ufl.edu/pdf/EP/EP09200.pdf>)