

SYNTHETIC TURF: TOTAL GLUE-DOWNS ARE JUSTIFIABLY COMING BACK

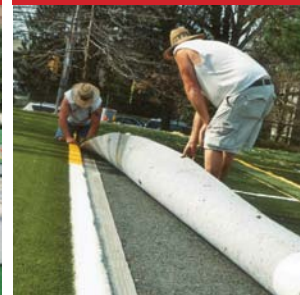
Total glue-down by spraying



Total glue-down by squeegee



Loose-laid narrow seams over stone



Synthetic turf technology has greatly improved with time. It is called “progress” and the word is synonymous with change and improvements. While better in many ways over the old ones, these new turf systems also have their own problems, which we think could be solved by total glue-down instead of loose-laying turf. More people are realizing that the higher quality and higher initial cost of a total glue-down is worth it in the short run and even more so in the long run.

HISTORY - In the late 1960’s and early 1970’s, artificial grass/synthetic turf began to make its mark as an alternative surface in areas where natural grass could not perform such as: a) athletic fields – especially after bad weather or heavily used fields, b) in high foot traffic areas without athletic activities, c) when maintenance is a hazard like highway median strips, d) in areas where grass growing is a problem such as: the desert, boat docks, around swimming pools and areas devoid of sunlight.

In the beginning, most good synthetic turf installations were totally glued-down on both hard surfaces or flexible shock absorbent bases. However, there were problems with the older turf systems (not related to the adhesive) so a slow evolution began to take place, which eventually led to new and better synthetic turfs; loose-laying the turf over crushed stones instead of gluing to a uniform sub-surface; by simply gluing only 6 inches or less of each side of the turf to seaming tape or even less joining area by sewing (called loose-laying). Then sand and/or rubber granules (called infill) is sprinkled or combed between the grass blades. The newer loose-laid systems with infill have their benefits but the major reason for their selection over total glue downs is their much lower price but not better performance.

Even when infill continues to be used, we think that many of the problems and expenses of repairing loose-laid systems could be prevented and/or avoided if the 15 foot wide turf rolls were totally glued down to a hard or shock absorbent sub-surface.

LOOSE-LAY SEAMS ARE THE BIG BAD WOLF -

Artificial turf surfaces that are used for athletic fields, playgrounds, landscaping and other applications, are basically rolls of engineered high-tech carpet joined to make one piece that covers the entire surface. In trade jargon, the joining is called “seaming”. Additional seams are created by purposely cutting or shaving the turf in order to insert lines, logos, numbers and different colored turfs.

An artificial turf surface is only as good as its joined seams because, **historically seams are the weakest link of a good synthetic turf installation**. Hence, from a seam standpoint, total glue downs are by far the best because high stress from athletic activities, maintenance vehicles, dimensional turf movement such as

expansion and/or contraction due to hourly and day-to-day changes in weather conditions (hot, cold, wet, dry, wind, etc.) are distributed over the entire installation instead of concentrating it only at narrowly joined seams like loose-lay installations. Total glue downs also prevent game line movement (“dancing lines” in trade jargon).

Whether they are 15 foot wide turf rolls or smaller inserts, strong and tightly bonded seams are **essential** not only for aesthetic purposes, but also to avoid injuries from dangerous installations and hazards like tripping or other injuries due to an open seam or shifting turf.

While the types of loose-lay installations that fill the turf matrix with sand and/or rubber granules hold the turf down due to gravity, they do not eliminate either lateral seam stresses and/or line

movement. Also, infill does not hold the turf down when wind gets under the loose-laid turf, causing the turf to act like a sail. A seam break, whether it be accidental due to high stress or an intentionally cut sewn seam by vandals, can cause a completely loose field. Hence, instead of a small localized and easily fixable seam problem of a total glue down, it is often a major problem with a loose-lay. Also, thieves can cut and

remove large sections of loose-laid turf for their home use or to disrupt an upcoming event.

It was easy to remember the problems with the older systems, especially when new problems with the loose-lay systems had not had enough time to surface. It’s no longer the case now that the aging problems of loose-laid installation have surfaced such as: broken or unraveled seams resulting in the entire installation being loose; infill getting underneath cut turf or open seams which must first be removed before repairs; shifting lines, numbers, logos, etc. due to expansion, contraction or machinery moving on the turf; vandalism, such as cutting sewn or glued loose-laid seams; and theft by cutting and removing a large section of turf.

VALUE SUMMARY BY ANALOGY - We think total glue-downs are gold and loose-lays are silver.

“Total glue-downs are **gold** and loose-lays are **silver**”



Norris Legue is a chemist and President of Synthetic Surfaces Inc. (www.nordot.com). In about 1969, he invented the first urethane adhesive that was used successfully to install synthetic turf athletic fields. His company’s new generations of NORDOT® Adhesives are used to install synthetic turf more than any other adhesive in the world. His peers have dubbed him the “Guru of Glue®”.