

# Temperatures of FieldTurf synthetic turf with GreenPlay (corkonut infill)

July – September 2016

**Rockwood School District**  
Lafayette High School, Wildwood, MO  
Marquette High School, Chesterfield, MO

## SYNTHETIC TURF Skin Injury References

### EXPOSED SKIN/BODY EFFECTS

\*MSHSAA Guidelines

\*\*Universities like BYU: athletic fields unusable above 120° F.



**105 °F\*** (heat index)

cancel sport  
115 °F  
burns, heat stroke

**122 °F\*\***

<10 MINUTES  
injure/burn  
131 °F  
2nd degree burn

**>120 °F scalds**



**140 °F**

**3 SECONDS**  
2nd degree burn

**5 SECONDS**  
3rd degree burn

**162 °F**

human tissue  
destroyed on  
contact,  
may cause  
nerve damage



### Sources:

[https://www.mshsaa.org/Media/Default\\_News\\_Media%20Information\\_content.aspx?viewmode=story&storyid=2](https://www.mshsaa.org/Media/Default_News_Media%20Information_content.aspx?viewmode=story&storyid=2)

<https://www.reference.com/health/temperature-human-skin-burn-82a1af6b1322b289>

<https://www.nist.gov/%3Cfront%3E/fire-dynamics>

[http://www.mountsinai.org/static\\_files/MSMC/Files/Patient%20Care/Children/Childrens%20Environmental%20Health%20Center/Fact%20Sheet%20-%20Back%20to%20School%20QA.pdf](http://www.mountsinai.org/static_files/MSMC/Files/Patient%20Care/Children/Childrens%20Environmental%20Health%20Center/Fact%20Sheet%20-%20Back%20to%20School%20QA.pdf)

[http://www.synturf.org/images/Devitt\\_et\\_al\\_2008\\_art\\_turf.pdf](http://www.synturf.org/images/Devitt_et_al_2008_art_turf.pdf)

<http://lasvegassun.com/news/2009/jan/15/fake-grass-has-drawback-it-gets-too-hot-study-says/>

[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0ahUKEwiGnr20q4bPAhXHGz4KHVATC4QFggIMAE&url=http%3A%2F%2Fwellesley.ma.gov%2Fpages%2FWellesleyMA\\_SpragueResources%2FSynthetic%2520Surfaces%2520Heat%2520Study.doc&usg=AFQjCNHuko4eAocdC79J83YAs-0MFP\\_1Jw&cad=rja](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0ahUKEwiGnr20q4bPAhXHGz4KHVATC4QFggIMAE&url=http%3A%2F%2Fwellesley.ma.gov%2Fpages%2FWellesleyMA_SpragueResources%2FSynthetic%2520Surfaces%2520Heat%2520Study.doc&usg=AFQjCNHuko4eAocdC79J83YAs-0MFP_1Jw&cad=rja)

<http://www.npr.org/templates/story/story.php?storyId=93364750>

<http://emergencynurse-community.blogspot.com/2009/05/burns-thermal.html>

**Lafayette High School** (No pictures available)

7/2016

Kids around 6 years old playing soccer

Air Temp = 84 °F

Grass = 98 °F

FT w/ GP = **125 °F**

Asphalt = 135 °F

**Lafayette High School**

7/2016

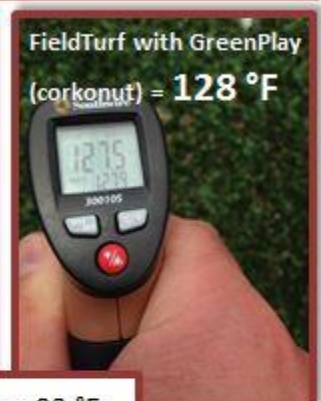


Air Temp = 91 °F



**Lafayette High School**

7/2016



Air Temp = 93 °F



**NOTE:** Grass fields are in poor shape, maintained by school staff only. Licensed agronomist notes that grass field temperatures would be even lower if grass was in good condition.

**Marquette High School (kids playing at Lafayette)**  
7/2016



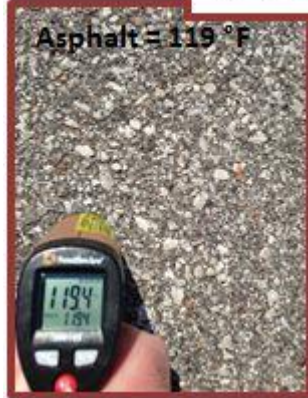
Air Temp = 97 °F



**Marquette High School (kids playing)**  
9/2016



Air Temp = 79 °F



**Marquette High School**  
8/2016

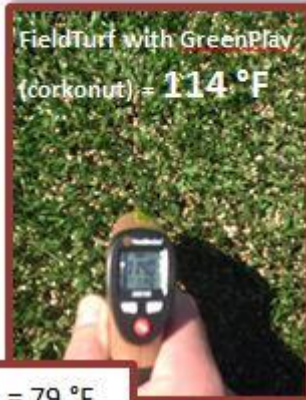


Air Temp = 82 °F



**NOTE:** Grass fields are in poor shape, maintained by school staff only. Licensed agronomist notes that grass field temperatures would be even lower if grass was in good condition.

**Marquette High School**  
9/2016



Air Temp = 79 °F



**Marquette High School**  
9/2016



Air Temp = 87 °F



**NOTE:** Grass fields are in poor shape, maintained by school staff only. Licensed agronomist notes that grass field temperatures would be even lower if grass was in good condition.