



# TERRAGRID 55

## Geogrids

TerraGrid geogrids are made up of woven high tenacity polyester and coated with a polyvinyl chloride (PVC) coating. TerraGrid geogrids non-biodegradable and resistant to most soil chemicals, acids, and alkalis with a pH range of 3 to 12. TerraGrid 55 is manufactured to meet or exceed the following machine direction roll value requirements.

		English		Metric
			<u>lbs/ft</u>	<u>kN/m</u>
<b>Tensile Properties</b>				
Ultimate Strength	ASTM D 6637	$T_{ult}$	<b>4,670</b>	<b>68.38</b>
Ultimate Strain at Failure	ASTM D 6637	$\epsilon_{ult}$	<b>15%</b>	<b>15%</b>
Creep Reduced Strength	ASTM D 5262	$T_I$	<b>3,032</b>	<b>44.4</b>

### Design Strength Properties

Creep Reduction Factor	NCMA 97	$RF_{CR}$	<b>1.54</b>	<b>1.54</b>
Aging / Durability Reduction Factor	NCMA 97	$RF_D$	<b>1.10</b>	<b>1.10</b>
Installation Damage Reduction Factor	NCMA 97			
Soil Type 1	100mm Max, 30mm $D_{50}$ , $PI < 6$	$RF_{ID}$	<b>1.55</b>	<b>1.55</b>
Soil Type 2	20mm Max, 0.7mm $D_{50}$ , $PI < 6$	$RF_{ID}$	<b>1.05</b>	<b>1.05</b>
Soil Type 3	20mm Max, 0.1-0.5mm $D_{50}$ , $PI < 20$	$RF_{ID}$	<b>1.05</b>	<b>1.05</b>

### Long Term Design Strength

		NCMA 97		English	Metric
				<u>lbs/ft</u>	<u>kN/m</u>
$T_{ult} / (RF_{ID} \text{ for Soil Type 1 } \times RF_D \times RF_{CR})$			LTDS	<b>1,779</b>	<b>26.0</b>
$T_{ult} / (RF_{ID} \text{ for Soil Type 2 } \times RF_D \times RF_{CR})$			LTDS	<b>2,625</b>	<b>38.4</b>
$T_{ult} / (RF_{ID} \text{ for Soil Type 3 } \times RF_D \times RF_{CR})$			LTDS	<b>2,625</b>	<b>38.4</b>

### Design Interaction Properties

		GRI-GG5 '91		English	Metric
Coefficient of Interaction					
Soil Type 1	100mm Max, 30mm $D_{50}$ , $PI < 6$	$C_I$		<b>0.75</b>	<b>0.75</b>
Soil Type 2	20mm Max, 0.7mm $D_{50}$ , $PI < 6$	$C_I$		<b>0.80</b>	<b>0.80</b>
Soil Type 3	20mm Max, 0.1-0.5mm $D_{50}$ , $PI < 20$	$C_I$		<b>0.80</b>	<b>0.80</b>

### Coefficient of Direct Sliding

		ASTM D 5321		English	Metric
Soil Type 1	100mm Max, 30mm $D_{50}$ , $PI < 6$	$C_{ds}$		<b>0.70</b>	<b>0.70</b>
Soil Type 2	20mm Max, 0.7mm $D_{50}$ , $PI < 6$	$C_{ds}$		<b>0.85</b>	<b>0.85</b>
Soil Type 3	20mm Max, 0.1-0.5mm $D_{50}$ , $PI < 20$	$C_{ds}$		<b>0.80</b>	<b>0.80</b>

### Physical Properties

Aperture		<b>..87in X .98 in</b>	<b>22mm x 25mm</b>
Roll Size		<b>12 ft X 150 ft</b>	<b>3.66 m X 45.7m</b>

7/01/08 NCMA

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