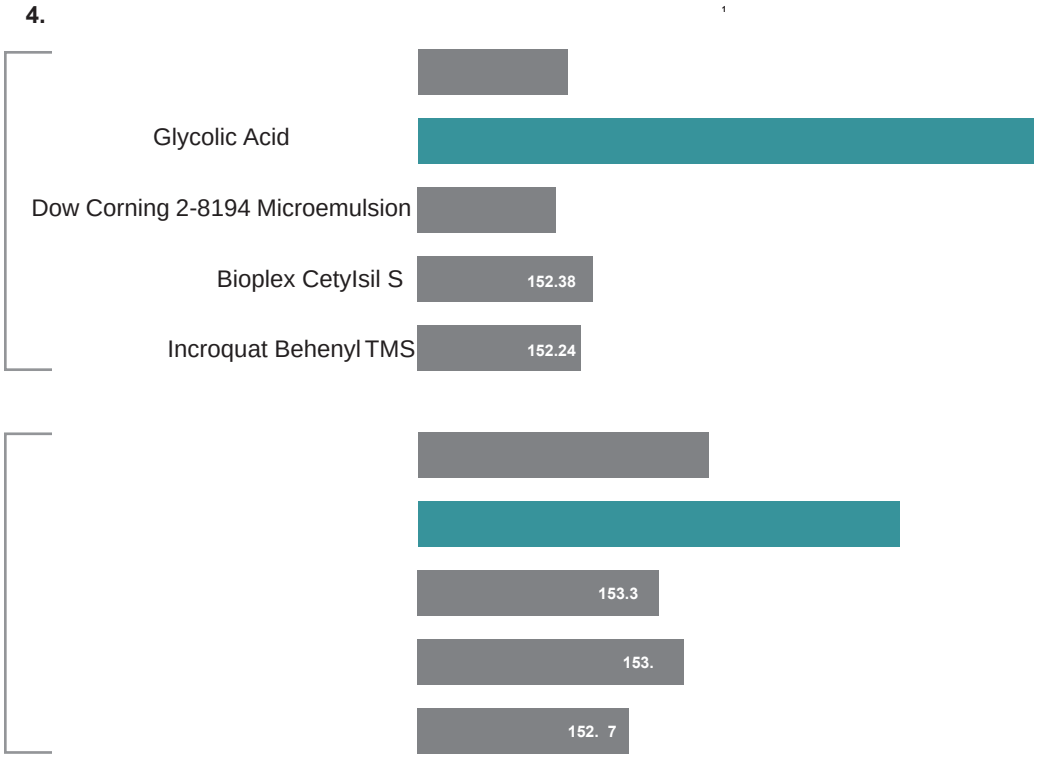
**4.**


Glycolic Acid
Dow Corning 2-8194 Microemulsion
Bioplex CetyIsil S
152.38
Incroquat Behenyl TMS
152.24
153.3
153.
152. 7

## Figure 5. Results from tensile strength experiment

| | Healthy Control (average of 23 samples) | std dev | Healthy 5 min Stearyl Alcohol (control) | std dev |
|---|---|---|---|---|
| diameter (micrometers) | 73.90 | 21.52 | | |
| denier | 50.92 | - | 38.01 | - |
| Initial Modulus (gf/den) | 34.10 | 13.91 | 40.86 | 12.75 |
| tenacity at break (gf/den) | 1.31 | 0.52 | 1.46 | 0.44 |
| elongation at break (%) | 43.12 | 4.11 | 38.99 | 5.55 |
| toughness (gf/den) | 0.35 | 0.15 | 0.37 | 0.13 |

| | Bleached Control (average of 21 samples) | std dev | Bleached 5 min Stearyl Alcohol (control) | std dev |
|---|---|---|---|---|
| diameter (micrometers) | 82.50 | 20.94 | | |
| denier estimate | 63.44 | - | 37.96 | - |
| Initial Modulus (gf/den) | 23.70 | 15.84 | 42.24 | 13.32 |
| tenacity at break (gf/den) | 0.82 | 0.27 | 1.40 | 0.51 |
| elongation at break (%) | 96.47 | 143.19 | 47.05 | 4.66 |
| toughness (gf/den) | 0.24 | 0.09 | 0.43 | 0.18 |

| | Healthy Control (average of 23 samples) | std dev | Healthy 5 min glycolic acid treatment | std dev |
|---|---|---|---|---|
| diameter (micrometers) | 73.90 | 21.52 | | |
| denier | 50.92 | - | 40.21 | - |
| Initial Modulus (gf/den) | 34.10 | 13.91 | 38.49 | 7.71 |
| tenacity at break (gf/den) | 1.31 | 0.52 | 1.56 | 0.30 |
| elongation at break (%) | 43.12 | 4.11 | 43.79 | 3.04 |
| toughness (gf/den) | 0.35 | 0.15 | 0.40 | 0.09 |

| | Bleached Control (average of 21 samples) | std dev | Bleached 5 min glycolic acid treatment | Std Dev |
|---|---|---|---|---|
| diameter (micrometers) | 82.50 | 20.94 | | |
| denier estimate | 63.44 | - | 38.45 | - |
| Initial Modulus (gf/den) | 23.70 | 15.84 | 45.25 | 12.70 |
| tenacity at break (gf/den) | 0.82 | 0.27 | 1.47 | 0.54 |
| elongation at break (%) | 96.47 | 143.19 | 47.10 | 6.60 |
| toughness (gf/den) | 0.24 | 0.09 | 0.45 | 0.22 |

| | Healthy Control (average of 23 samples) | std dev | Healthy 5 min Bioplex Cetylsil S | std dev |
|---|---|---|---|---|
| diameter (micrometers) | 73.90 | 21.52 | | |
| denier | 50.92 | - | 38.80 | - |
| Initial Modulus (gf/den) | 34.10 | 13.91 | 43.10 | 15.00 |
| tenacity at break (gf/den) | 1.31 | 0.52 | 1.54 | 0.50 |
| elongation at break (%) | 43.12 | 4.11 | 40.22 | 4.21 |
| toughness (gf/den) | 0.35 | 0.15 | 0.39 | 0.14 |

| | Bleached Control (average of 21 samples) | std dev | Bleached 5 min Bioplex Cetylsil S | std dev |
|---|---|---|---|---|
| diameter (micrometers) | 82.50 | 20.94 | | |
| denier estimate | 63.44 | - | 40.24 | - |
| Initial Modulus (gf/den) | 23.70 | 15.84 | 43.23 | 17.58 |
| tenacity at break (gf/den) | 0.82 | 0.27 | 1.52 | 0.53 |
| elongation at break (%) | 96.47 | 143.19 | 50.64 | 6.27 |
| toughness (gf/den) | 0.24 | 0.09 | 0.48 | 0.19 |

| | Healthy Control (average of 23 samples) | std dev | Healthy 5 min Dow Corning 2-8194 Microemulsion | std dev |
|---|---|---|---|---|
| diameter (micrometers) | 73.90 | 21.52 | | |
| denier | 50.92 | - | 34.94 | - |
| Initial Modulus (gf/den) | 34.10 | 13.91 | 45.32 | 19.08 |
| tenacity at break (gf/den) | 1.31 | 0.52 | 1.74 | 0.71 |
| elongation at break (%) | 43.12 | 4.11 | 45.68 | 3.51 |
| toughness (gf/den) | 0.35 | 0.15 | 0.50 | 0.23 |

| | Bleached Control (average of 21 samples) | std dev | Bleached 5 min Dow Corning 2-8194 Microemulsion | std dev |
|---|---|---|---|---|
| diameter (micrometers) | 82.50 | 20.94 | | |
| denier estimate | 63.44 | - | 43.06 | - |
| Initial Modulus (gf/den) | 23.70 | 15.84 | 39.48 | 12.54 |
| tenacity at break (gf/den) | 0.82 | 0.27 | 1.34 | 0.45 |
| elongation at break (%) | 96.47 | 143.19 | 54.27 | 7.92 |
| toughness (gf/den) | 0.24 | 0.09 | 0.49 | 0.22 |

| | Healthy Control (average of 23 samples) | std dev | Healthy 5 min Incroquat Behenyl TMS | std dev |
|---|---|---|---|---|
| diameter (micrometers) | 73.90 | 21.52 | | |
| denier | 50.92 | - | 39.67 | - |
| Initial Modulus (gf/den) | 34.10 | 13.91 | 44.73 | 14.56 |
| tenacity at break (gf/den) | 1.31 | 0.52 | 1.43 | 0.56 |
| elongation at break (%) | 43.12 | 4.11 | 44.13 | 7.50 |
| toughness (gf/den) | 0.35 | 0.15 | 0.42 | 0.19 |

| | Bleached Control (average of 21 samples) | std dev | Bleached 5 min Incroquat Behenyl TMS | std dev |
|---|---|---|---|---|
| diameter (micrometers) | 82.50 | 20.94 | | |
| denier estimate | 63.44 | - | 36.12 | - |
| Initial Modulus (gf/den) | 23.70 | 15.84 | 44.47 | 16.84 |
| tenacity at break (gf/den) | 0.82 | 0.27 | 1.63 | 0.58 |
| elongation at break (%) | 96.47 | 143.19 | 41.73 | 2.68 |
| toughness (gf/den) | 0.24 | 0.09 | 0.43 | 0.17 |