

Test Performed by: Dr.S. Asad Ali Gillani

Atif Mughal  
Manager Material (Engr)  
Central Lab DHA Islamabad- Rawalpindi  
Client Reference No.: DHA/Central Lab/Ph-I/58  
SOM Lab Ref: CED/SOM/4301 (P-1/1)

Dated: 07-06-2024  
Dated: 10-06-2024

Test Type: Flexural Strength & Crushing Strength Test      Standard: ASTM-C-875 - 98

Sample Type: Asbestos Pipes (6 Inches)      Brand: Delux Chrysotile

#### Flexural Load Results

| Sample No. | Diameter (mm) |       | Thickness (mm) | Length of the Tested Sample (unsupported span) (mm) | Flexural Load (kN) |
|------------|---------------|-------|----------------|---|--------------------|
|            | Outer         | Inner |                |   |                    |
| 1          | 170.0         | 151.4 | 9.3            | 1372  | 4.70               |
| 2          | 170.0         | 151.6 | 9.2            | 1372  | 4.70               |

#### Crushing Load Results

| Sample No. | Diameter (mm) |       | Thickness (mm) | Length of the Tested Sample (cm) | Crushing Load (kN) |
|------------|---------------|-------|----------------|----------------------------------|--------------------|
|            | Outer         | Inner |                |                                  |                    |
| 1          | 167.0         | 148.6 | 9.2            | 30.0                             | 1.70               |
| 2          | 170.0         | 151.6 | 9.2            | 30.0                             | 1.35               |

Qaiser Aziz

Test Performed By: Dr. /Engr. Nauman Khurram

Site Engr OZ Developers Lahore.(Const a High-rise Building Bahria Sky at Bahria Orchard ph-4 Lhr)

Client Reference: Nil

SOM Lab

Ref: 4300 (Page-1/1)

Dated: 10-05-2024

Dated: 10-06-2024

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Gauge Length: 8 inch

Sample Type: Deformed Bar

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | lb/ft  | #       | in         | in <sup>2</sup> | in <sup>2</sup> | Tons       | Tons          | psi                         | psi                          | psi                         | psi                          | in         | in           | %               |         |
| 1     | 1.494  | 6       | 0.748      | 0.44            | 0.439           | 14.17      | 19.03         | 71020                       | 71190                        | 95400                       | 95610                        | 1.40       | 8.0          | 17.5            |         |
| 2     | 1.490  | 6       | 0.747      | 0.44            | 0.438           | 14.53      | 19.18         | 72810                       | 73140                        | 96160                       | 96600                        | 1.50       | 8.0          | 18.8            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|     |  |   |
|-----|--|---|
| # 6 | Sample bend through 180 degrees Satisfactorily without any crack | <b>Note:-</b><br><br>Only Three Samples Received and Tested |
|     |  |   |
|     |  |   |
|     |  |   |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)

Ali Raza  
Lahore.

Test Performed By: Dr. /Engr. Asad Ali Gillani

Client Reference: Nil

SOM Lab

Ref: 4302 (Page-1/1)

Dated: 10-06-2024

Dated: 10-06-2024

Test: Tension Test & Bend Test

Test Specification: ASTM-A-615

Gauge Length: 8 inch

Sample Type: Deformed Bar

| S.No. | Weight | Dia.    |            | Area            |                 | Yield Load | Ultimate Load | Yield Stress                |                              | Ult. Stress                 |                              | Elongation | Gauge Length | %age Elongation | Remarks |
|-------|--------|---------|------------|-----------------|-----------------|------------|---------------|-----------------------------|------------------------------|-----------------------------|------------------------------|------------|--------------|-----------------|---------|
|       |        | Nominal | Calculated | Nominal         | Calculated      |            |               | (according to nominal area) | (according to measured area) | (according to nominal area) | (according to measured area) |            |              |                 |         |
|       | lb/ft  | #       | in         | in <sup>2</sup> | in <sup>2</sup> | Tons       | Tons          | psi                         | psi                          | psi                         | psi                          | in         | in           | %               |         |
| 1     | 2.610  | 8       | 0.988      | 0.79            | 0.767           | 25.48      | 33.79         | 71150                       | 73280                        | 94340                       | 97170                        | 1.60       | 8.0          | 20.0            |         |
| 2     | 2.622  | 8       | 0.991      | 0.79            | 0.771           | 25.86      | 33.74         | 72200                       | 73980                        | 94200                       | 96520                        | 1.50       | 8.0          | 18.8            |         |
| 3     | 1.055  | 5       | 0.628      | 0.31            | 0.310           | 10.77      | 14.78         | 76660                       | 76660                        | 105160                      | 105160                       | 1.30       | 8.0          | 16.3            |         |
| 4     | 1.052  | 5       | 0.627      | 0.31            | 0.309           | 10.09      | 13.88         | 71800                       | 72030                        | 98780                       | 99100                        | 1.30       | 8.0          | 16.3            |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |
| -     | -      | -       | -          | -               | -               | -          | -             | -                           | -                            | -                           | -                            | -          | -            | -               |         |

**BEND TEST:**

|     |  |   |
|-----|--|---|
| # 8 | Sample bend through 180 degrees Satisfactorily without any crack | <b>Note:-</b><br><br>Only Six Samples Received and Tested |
| # 5 | Sample bend through 180 degrees Satisfactorily without any crack |   |
|     |  |   |
|     |  |   |

Note: Please always confirm the results of above report on web [www.uet-civil.edu.pk](http://www.uet-civil.edu.pk)