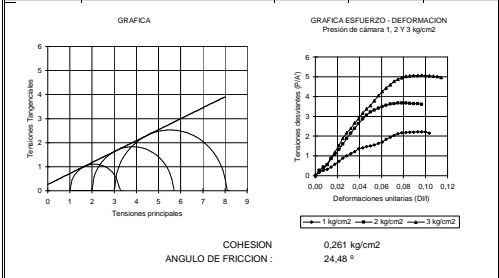


OBRA: JUME ESQUINA
UBICACION: SANTIAGO DEL ESTERO

| DATOS DE LA MUESTRA | | | |
|----------------------------------|------------------|----------|---------------|
| Ubicación: | PCA - Perfil "A" | Volumen: | 67.312 cm3. |
| Profundidad: | 3,00 m. | Peso: | 102.100 grs |
| Diámetro: | 3,5 cm. | D. nat.: | 1,917 gr/cm3. |
| Alura: | 7,9 cm | Hum. %: | 16,70 % |
| Area: | 9.616 cm2. | D. seco: | 1.300 gr/cm3. |
| constante del arco de carga: K = | | | 0,526 |

| Datos del Ensayo | | Presión de Cámara G3 en kg/cm ² | | |
|------------------|---|--|--------|---------|
| No. | | 1.000 | 2.000 | 3.000 |
| 1 | Lectura inicial carga | 0,000 | 0,000 | 0,000 |
| 2 | Lectura final carga | 44,900 | 73,200 | 103,800 |
| 3 | Dilatación de carga (Δ l) | 4,900 | 73,200 | 103,800 |
| 4 | Fuerza axial (P = 3 kg) (Kg.) | 23,617 | 38,503 | 54,178 |
| 5 | Lectura inicial deformaciones (cm) | 0,000 | 0,000 | 0,000 |
| 6 | Lectura final deformaciones (cm) | 0,675 | 0,600 | 0,725 |
| 7 | Deformación de la muestra (ε = Δ l / l ₀) | 0,675 | 0,600 | 0,725 |
| 8 | Factor corrección axial (R = u / h / 7) | 1,064 | 1,064 | 1,116 |
| 9 | Área corregida (A = 8 x A) (cm ²) | 10,640 | 10,518 | 10,727 |
| 10 | Presión axial (Ga = P/A) (kg/cm ²) | 2,219 | 3,661 | 5,051 |
| 11 | Tensión Principal (G1 = Ga + G3) | 3,219 | 5,661 | 8,051 |
| 12 | Tensión de poros (u) (kg/cm ²) | | | |
| 13 | Tensión Princ. efect. (G1-G3-u) | 3,219 | 5,661 | 8,051 |
| 14 | Tensión princ. efect. (G3-G3-u) | 0,000 | 2,000 | 3,000 |



| | | | | | |
|------|-------|------|-------|------|-------|
| g1 = | 1,000 | g3 = | 2,000 | g5 = | 3,000 |
| g2 = | 3,219 | g4 = | 5,661 | g6 = | 8,051 |

$$R1=(g2-g1)/2= 1,110 \qquad R2=(g4-g3)/2= 1,830 \qquad R3=(g6-g5)/2= 2,525$$

$$a_1 = (g_2 + g_1)/2 = 2,110 \quad a_2 = (g_4 + g_3)/2 = 3,830 \quad a_3 = (g_6 + g_5)/2 = 5,525$$

| | | | |
|----------|-------|-----------------------------|---------|
| sen B1 = | 0,419 | senB=(senb1+senb2+senb3)/3= | 0,414 |
| sen B2 = | 0,410 | c = (c1 + c2 + c3)/3 = | 0,261 |
| sen B3 = | 0,414 | B = arc sen B = | 24,484 |
| | | tag B = | 0,455 |
| c1 = | 0,259 | cos B = | 0,910 |
| c2 = | 0,267 | Atan B | 24,4844 |
| c3 = | 0,259 | | |

$$\begin{aligned} \text{senB1} &= (R2-R1)/(a2-a1) = 0,419 & \text{senB2} &= (R3-R2)/(a3-a2) = 0,410 & \text{senB3} &= (R3-R1)/(a3-a1) = 0,414 \\ c1 &= R1/\cos B1 - a1 \times \text{tg} B1 = 0,259 & c2 &= R2/\cos B2 - a2 \times \text{tg} B2 = 0,267 & c3 &= R3/\cos B3 - a3 \times \text{tg} B3 = 0,259 \end{aligned}$$

| | | | | | |
|-------|-------|-------|-------|-------|-------|
| 0,000 | 1,650 | 3,072 | 4,479 | 5,000 | 8,000 |
| 0,261 | 1,013 | 1,660 | 2,301 | 2,538 | 3,905 |