

ANÁLISIS DE ESTRUCTURAS.

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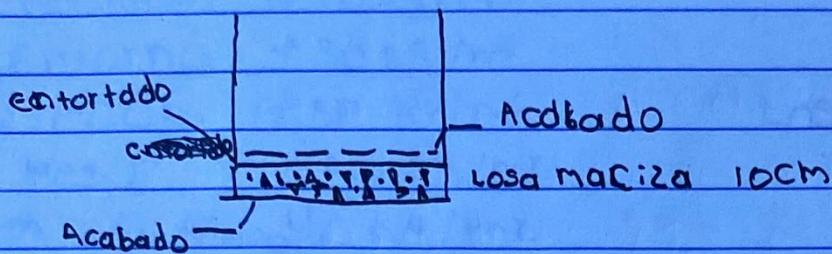
LOPEZ

4. CUATRIMESTRE

ANALISIS DE ESTRUCTURAS

20 DE ENERO DEL 2024





Acabado $\rightarrow 10 \text{ kg/m}^2$

entortado $\rightarrow 30 \text{ kg/m}^2$

Losa Maciza $\rightarrow 240 \text{ kg/m}^2$

YESO $\rightarrow 30 \text{ kg/m}^2$

CM Reglamento $\rightarrow 40 \text{ kg/m}^2$

$$\begin{array}{r}
 \text{CM } 410 \text{ kg/m}^2 \\
 \text{CV } 170 \text{ kg/m}^2 \\
 \hline
 \text{total } 580 \text{ kg/m}^2
 \end{array}
 \rightarrow + 90 \text{ kg/m}^2 = 670 \text{ kg/m}^2$$

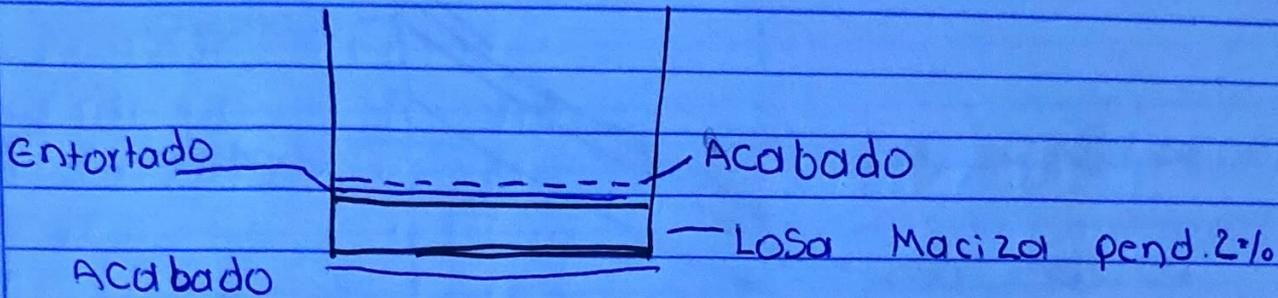
$$2,400 \text{ k.m}^3 (0.12 \text{ m}) = 2.88 \text{ kg/m}^2$$

Acabado	→ 70 kg/m ²	
Entorno	→ 30 kg/m ²	
L. MOLIJO	→ 312 kg/m ²	Losa de 10cm CM
Yeso	30 kg/m ²	410
CM Reglamento	40 kg/m ²	
<hr/>		
CM	482 kg/m ²	410 CM Oficinas 10cm
CV	170 kg/m ²	250 CV
	652 kg/m ²	660 kg/m ²

Baño

Relleño	100 kg/m ²	
Acabado	→ 70 kg/m ²	Losa de losa 10 cm
Entortado	→ 30 kg/m ²	100
Losa maciza	→ 240 kg/m ²	12cm ²⁸⁸ L
Yeso	→ 30 kg/m ²	
CM Reglamento	<u>40 kg/m²</u>	
CM	510 kg/m ²	→ + 90 kg/m ² = 600 kg/m ²
CV	<u>170 kg/m²</u>	
total 680 kg/m ²		

Losa de Azotea



Pendiente máxima del

5%

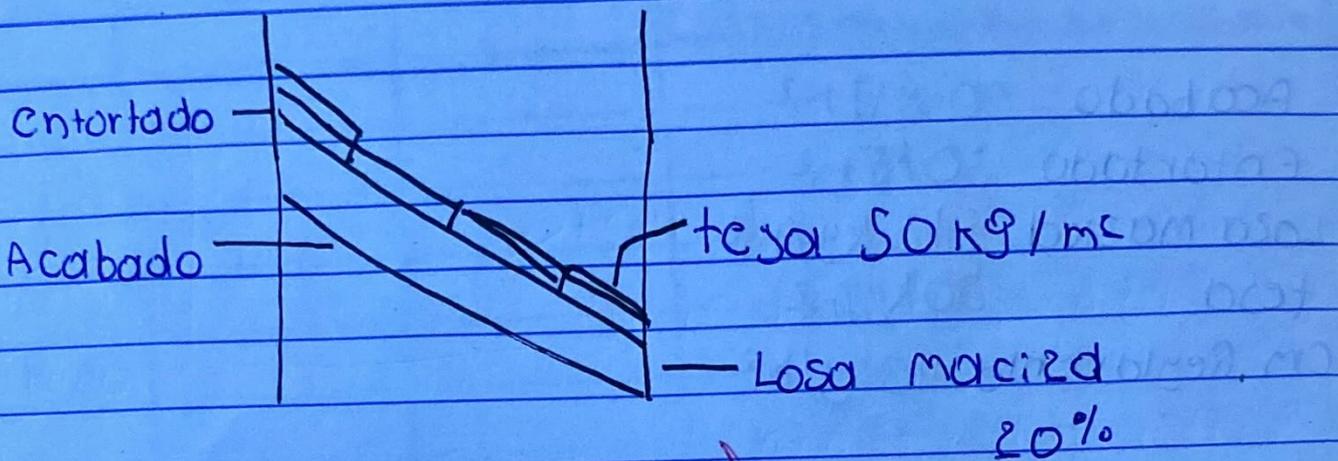
Relleno	100 kg/m ²
Acabado	70 kg/m ²
Entortado	30 kg/m ²
Losa Maciza	240 kg/m ²
Yeso	30 kg/m ²
CM Reglamento	40 kg/m ²

$$\begin{aligned} \text{CM} & 510 \text{ kg/m}^2 \rightarrow 70 \text{ kg/m}^2 = 580 \text{ kg/m}^2 \\ & 100 \text{ kg/m}^2 \\ \text{total} & 610 \text{ kg/m}^2 \end{aligned}$$

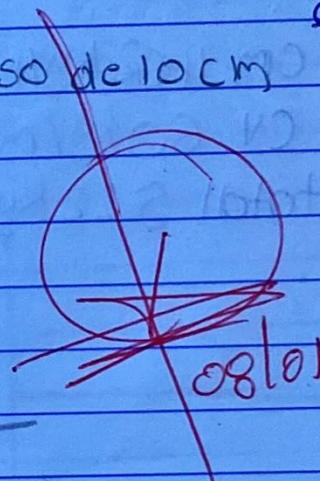
Losa de Azotea de

12 cm 658 kg/m²

13 cm 682 kg/m²



Acabado 30 kg/m^2
 Entortado 30 kg/m^2
 Losos Macizas 240 kg/m^2
 teja 50 kg/m^2
 CM Reglamento 40 kg/m^2



Losos de 10 cm
 (10, 12, 13) cm
 $CM \ 390 \text{ kg/m}^2 \rightarrow 20 = 410 \text{ kg/m}^2$
 $CV \ 60 \text{ kg/m}^2$
 total 450 kg/m^2

Acabado 30 kg/m^2 Losa de 12 cm
 Entortado 30 kg/m^2
 Losa macizo 288 kg/m^2
 teja 50 kg/m^2
 CM Reglamento 40 kg/m^2
 $CM \ 438 \text{ kg/m}^2 = \rightarrow 20 = 458 \text{ kg/m}^2$
 $CV \ 60 \text{ kg/m}^2$
 total 498 kg/m^2

Losas de 13cm

Acabado 30 kg/m²

Entortado 30 kg/m²

Loza maldica 312 kg/m²

fcsd 50 kg/m²

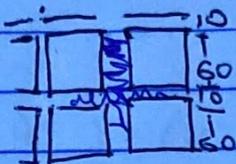
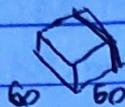
cm Replamento 40 kg/m²

$$\text{cm } 462 \text{ kg/m}^2 + 20 \text{ kg/m}^2 = 482 \text{ kg/m}^2$$

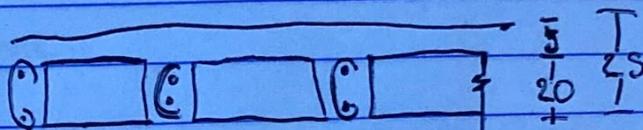
CV 60 kg/m²

total 522 kg/m²

caseton



nervaduras 10cm



Nervios verticales

$$0.10 \text{ m} \times 0.20 \text{ m} \times 1.0 \text{ m} (2400 \text{ kg/m}^3) \times 2 \text{ piezas} = 96 \text{ kg/m}^2$$

Nervios Horizontales

$$0.10 \text{ m} \times 0.20 \text{ m} \times 0.8 \text{ m} \times 2400 \text{ kg/m}^3 (2 \text{ piezas}) = 76.8 \text{ kg/m}^2$$

Capa de Compresión

$$1.0 \times 1.0 \text{ m} \times 0.05 \text{ m} \times 2400 \text{ kg/m}^3 = 120 \text{ kg/m}^2$$

$$292.8 \text{ kg/m}^2$$

$$15 \text{ kg/m}^3 \times 0.60 \times 0.60 \times 0.40 = 2.5 \text{ piezas}$$

$$\frac{2.70 \text{ kg} \times \text{m}^2}{245.50 \text{ kg/m}^2}$$

P.P. Losa de casetón → 295 kg/m²

H 25cm

Relevo 100 kg/m^2
 acabado 70 kg/m^2
 yeso 30 kg/m^2
 Losa de caseton 295 kg/m^2
 entortado 30 kg/m^2
 cm Reglamento 40 kg/m^2

$$\begin{array}{r}
 \text{cm } 565 \text{ kg/m}^2 \\
 \text{CV } 100 \text{ kg/m}^2 \\
 \hline
 665 \text{ kg/m}^2
 \end{array}
 + 70 \text{ kg/m}^2 = 635 \text{ kg/m}^2$$

Tcya 50 kg/m^2
 entortado 30 kg/m^2
 caseton 295 kg/m^2
 yeso 30 kg/m^2
 cm reglamento 60 kg/m^2

$$\begin{array}{r}
 \text{cm } 445 \text{ kg/m}^2 \\
 \text{CV } 60 \text{ kg/m}^2 \\
 \hline
 505 \text{ kg/m}^2
 \end{array}
 + 20 \text{ kg/m}^2 = 465 \text{ kg/m}^2$$

Acabado 70 kg/m^2
 entortado 30 kg/m^2
 Losa de caseton 295 kg/m^2
 yeso 30 kg/m^2
 cm Reglamento 40 kg/m^2

$$\begin{array}{r}
 \text{cm } 465 \text{ kg/m}^2 \\
 \text{CV } 1,70 \text{ kg/m}^2 \\
 \hline
 635 \text{ kg/m}^2
 \end{array}
 + 90 \text{ kg/m}^2 = 555 \text{ kg/m}^2$$

635 kg/m^2