



Model	A55	A60	R	P	A	Lb	wPvc	wPp
CT44	16.58 m <sup>2</sup> /m <sup>3</sup>	14.48 m <sup>2</sup> /m <sup>3</sup>	1.32 cm	180 mm	2370 mm <sup>2</sup>	44 mm +Th	85 kg/m <sup>3</sup>	66 kg/m <sup>3</sup>

### Terminology and Calculations

**A55** : Actual effective area for sedimentation of lamellae formed by 1 m<sup>3</sup> lamella placed with an angle of 55 degrees.

**A60** : Actual effective area for sedimentation of lamellae formed by 1 m<sup>3</sup> lamella placed with an angle of 60 degrees.

**R** : The hydraulic radius (Hydraulic Radius) is obtained by dividing the wet area into the wet perimeter. It affects the Reynold number, which determines the flow character (laminar / turbulence) from the section. Whether the water is turbulent or laminar, it is measured by the Reynold number.

**A** : It is the wet AREA of a honeycomb shape cell of Lamella.

**P** : It is the wet PERIMETER of a honeycomb shape cell of Lamella.

**wPvc** : 1 m<sup>3</sup> PVC lamella weight for CT44 model.

**wPp** : 1 m<sup>3</sup> PP (PolyPropylene) lamella weight for CT44 model.

**tPvc / tPp** : Maximum working temperature of PVC and PP.

**Calculation method of R** : It is found by dividing A / P

**A55 and A60 calculation method** : The plate slope angle ranges between 55 ° and 60 °, but usually 60 ° is used.

The total area At = (A1 + A2 + A3 + ..... AN) of inclined plates formed at the base is the projection area.

TA = Wx \* LA (m<sup>2</sup> / m<sup>3</sup>), LA = N \* LT \* Cos.SA (m)

N: Number of sheets - pieces

### Lamella and Hazen Speed- Lamella ve Hazen Hızı

$$V_h = Q_m / TA \quad V_h = 6 / 11.93 \quad V_h = 0.503 \text{ m/h}$$

Vh: Hazen Seed - Hazen Hızı (m/h)

Qm: Flow - Debi (m<sup>3</sup>/h)

TA : Total Active Area - Toplam Aktif Alan (m<sup>2</sup>)

Wx: Width - Genişlik

Lx: Length - Uzunluk

Hx: Height - Yükseklik

LT: Length of sheet - Lamella uzunluğu

SA : Slope Angle - Eğim Açısı

LA: LT \* Cos SA \* N

N: Number of sheets - Levha sayısı

TA: Total Aktive Area - Toplam Aktif Alan

TA = Wx \* LA

for TA : Tubesettler.com - Lamella.net

