

BİNA ENERJİ PERFORMANSI
HESAPLAMA YÖNTEMİ

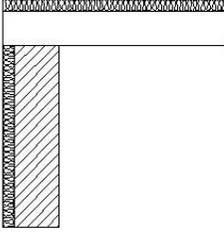
BEP

EK 2.

**BİNA ENERJİ PERFORMANSI –
ISI KÖPRÜLERİ**

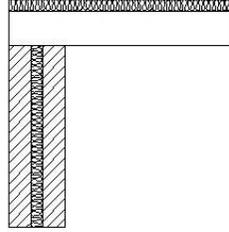
ÇATILAR

C1



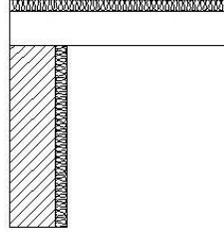
$$\begin{aligned}\psi_e &= 0,55 \\ \psi_{ot} &= 0,75 \\ \psi_j &= 0,75\end{aligned}$$

C2



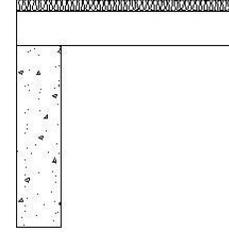
$$\begin{aligned}\psi_e &= 0,50 \\ \psi_{ot} &= 0,75 \\ \psi_j &= 0,75\end{aligned}$$

C3



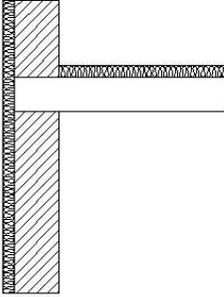
$$\begin{aligned}\psi_e &= 0,40 \\ \psi_{ot} &= 0,75 \\ \psi_j &= 0,75\end{aligned}$$

C4



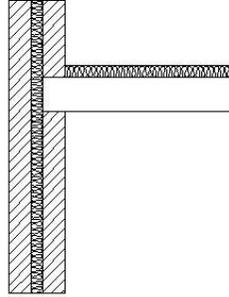
$$\begin{aligned}\psi_e &= 0,40 \\ \psi_{ot} &= 0,65 \\ \psi_j &= 0,65\end{aligned}$$

C5



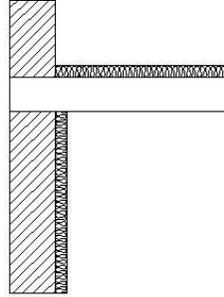
$$\begin{aligned}\psi_e &= 0,60 \\ \psi_{ot} &= 0,80 \\ \psi_j &= 0,80\end{aligned}$$

C6



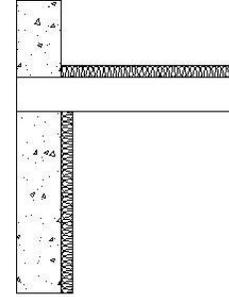
$$\begin{aligned}\psi_e &= 0,50 \\ \psi_{ot} &= 0,70 \\ \psi_j &= 0,70\end{aligned}$$

C7



$$\begin{aligned}\psi_e &= 0,65 \\ \psi_{ot} &= 0,85 \\ \psi_j &= 0,85\end{aligned}$$

C8



$$\begin{aligned}\psi_e &= 0,45 \\ \psi_{ot} &= 0,70 \\ \psi_j &= 0,70\end{aligned}$$

 DUVAR

 HAFİF DUVAR

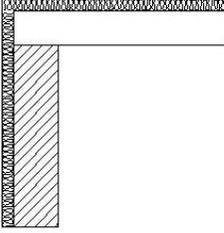
 YALITIM

 DÖŞEME/KOLON

 PENCERE ÇERÇEVESİ

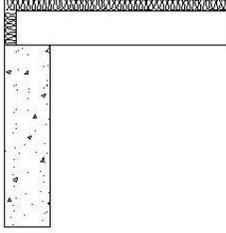
ÇATILAR

C9



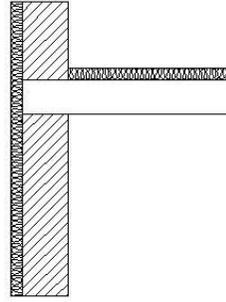
$$\begin{aligned}\psi_e &= -0,05 \\ \psi_{av} &= 0,15 \\ \psi_i &= 0,15\end{aligned}$$

C10



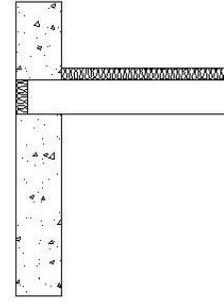
$$\begin{aligned}\psi_e &= 0,00 \\ \psi_{av} &= 0,20 \\ \psi_i &= 0,20\end{aligned}$$

C11



$$\begin{aligned}\psi_e &= 0,05 \\ \psi_{av} &= 0,25 \\ \psi_i &= 0,25\end{aligned}$$

C12



$$\begin{aligned}\psi_e &= 0,15 \\ \psi_{av} &= 0,40 \\ \psi_i &= 0,40\end{aligned}$$



DUVAR



HAFİF DUVAR



YALITIM

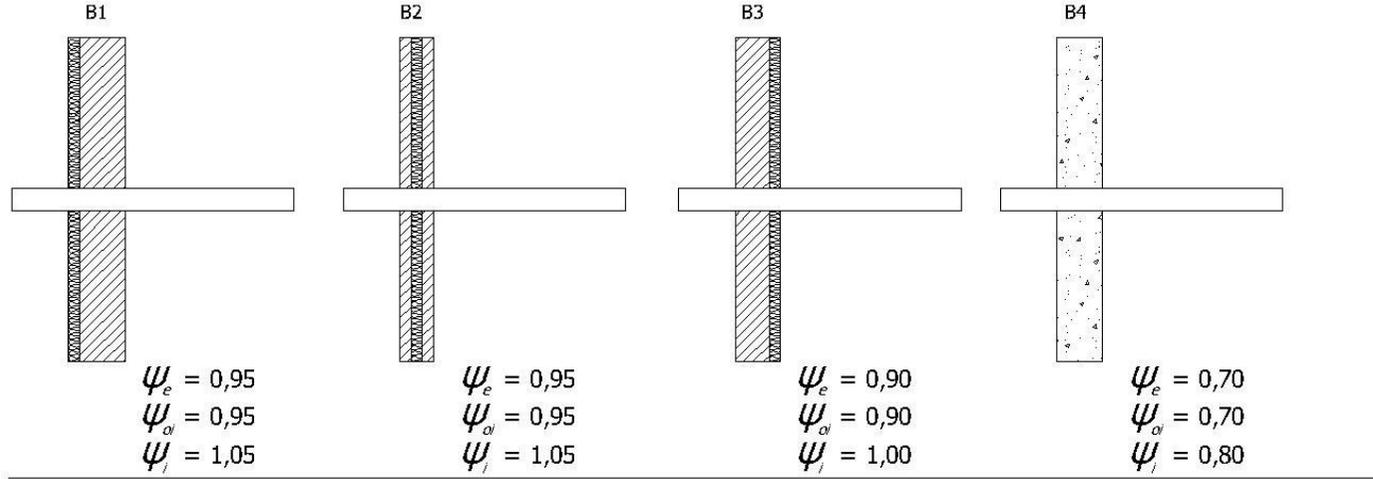


DÖŞEME/KOLON



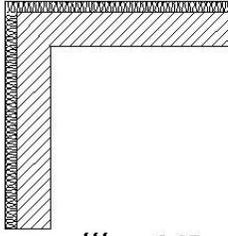
PENCERE ÇERÇEVESİ

BALKONLAR



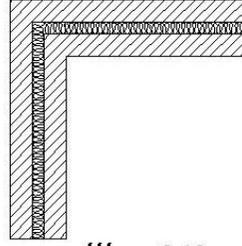
KÖŞELER

K1



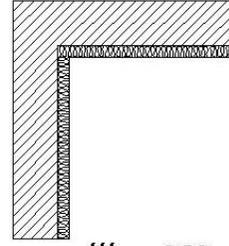
$$\begin{aligned}\psi_e &= -0,05 \\ \psi_{ol} &= 0,15 \\ \psi_j &= 0,15\end{aligned}$$

K2



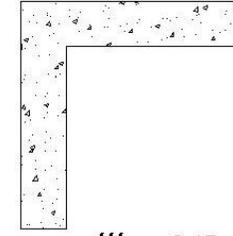
$$\begin{aligned}\psi_e &= -0,10 \\ \psi_{ol} &= 0,10 \\ \psi_j &= 0,10\end{aligned}$$

K3



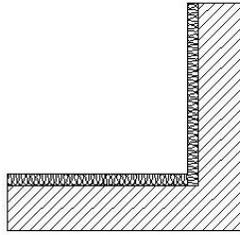
$$\begin{aligned}\psi_e &= -0,20 \\ \psi_{ol} &= 0,05 \\ \psi_j &= 0,05\end{aligned}$$

K4



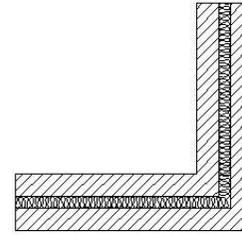
$$\begin{aligned}\psi_e &= -0,15 \\ \psi_{ol} &= 0,10 \\ \psi_j &= 0,10\end{aligned}$$

K5



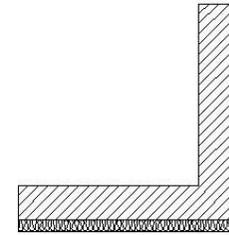
$$\begin{aligned}\psi_e &= 0,05 \\ \psi_{ol} &= -0,15 \\ \psi_j &= -0,15\end{aligned}$$

K6



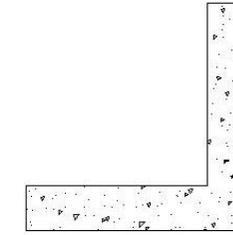
$$\begin{aligned}\psi_e &= 0,15 \\ \psi_{ol} &= -0,10 \\ \psi_j &= -0,10\end{aligned}$$

K7



$$\begin{aligned}\psi_e &= 0,15 \\ \psi_{ol} &= -0,05 \\ \psi_j &= -0,05\end{aligned}$$

K8

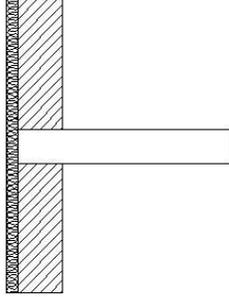


$$\begin{aligned}\psi_e &= 0,10 \\ \psi_{ol} &= -0,10 \\ \psi_j &= -0,10\end{aligned}$$



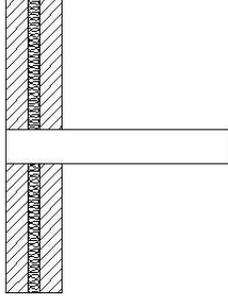
ARA KATLAR

AK1



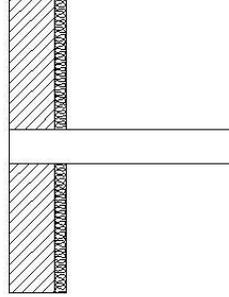
$$\begin{aligned}\psi_e &= 0,00 \\ \psi_{ot} &= 0,00 \\ \psi_f &= 0,10\end{aligned}$$

AK2



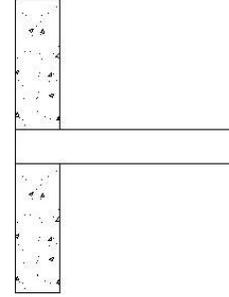
$$\begin{aligned}\psi_e &= 0,95 \\ \psi_{ot} &= 0,95 \\ \psi_f &= 1,05\end{aligned}$$

AK3



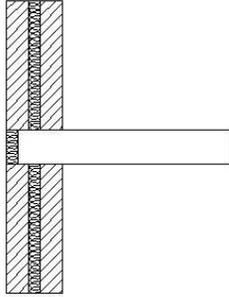
$$\begin{aligned}\psi_e &= 0,90 \\ \psi_{ot} &= 0,90 \\ \psi_f &= 1,00\end{aligned}$$

AK4



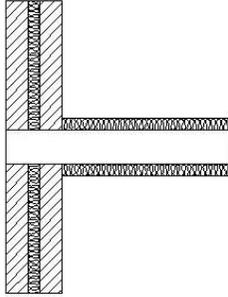
$$\begin{aligned}\psi_e &= 0,70 \\ \psi_{ot} &= 0,70 \\ \psi_f &= 0,80\end{aligned}$$

AK5



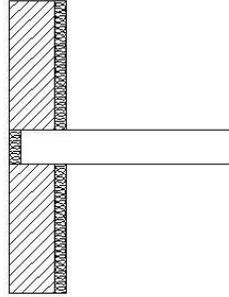
$$\begin{aligned}\psi_e &= 0,60 \\ \psi_{ot} &= 0,60 \\ \psi_f &= 0,65\end{aligned}$$

AK6



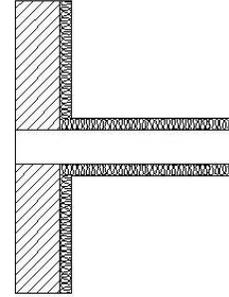
$$\begin{aligned}\psi_e &= 0,90 \\ \psi_{ot} &= 0,90 \\ \psi_f &= 1,00\end{aligned}$$

AK7



$$\begin{aligned}\psi_e &= 0,70 \\ \psi_{ot} &= 0,70 \\ \psi_f &= 0,80\end{aligned}$$

AK8



$$\begin{aligned}\psi_e &= 0,45 \\ \psi_{ot} &= 0,45 \\ \psi_f &= 0,60\end{aligned}$$

 DUVAR

 HAFİF DUVAR

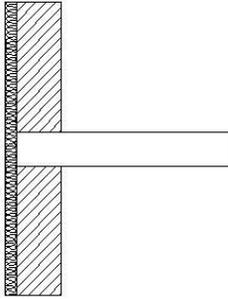
 YALITIM

 DÖŞEME/KOLON

 PENCERE ÇERÇEVESİ

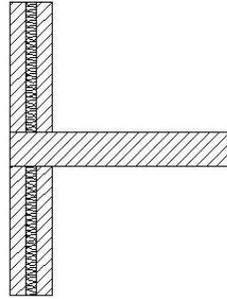
İÇ DUVARLAR

ICD1



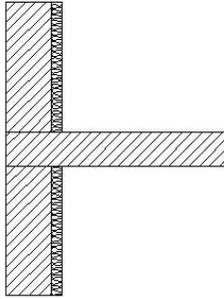
$$\begin{aligned}\psi_e &= 0,00 \\ \psi_{ot} &= 0,00 \\ \psi_f &= 0,10\end{aligned}$$

ICD2



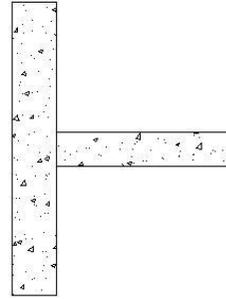
$$\begin{aligned}\psi_e &= 0,95 \\ \psi_{ot} &= 0,95 \\ \psi_f &= 1,05\end{aligned}$$

ICD3



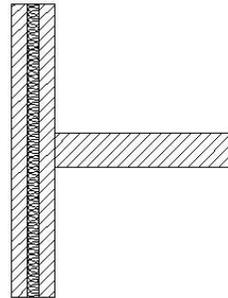
$$\begin{aligned}\psi_e &= 0,90 \\ \psi_{ot} &= 0,90 \\ \psi_f &= 1,00\end{aligned}$$

ICD4



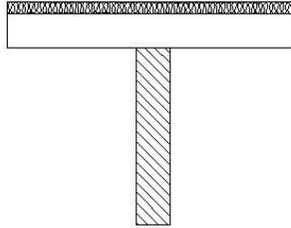
$$\begin{aligned}\psi_e &= 0,00 \\ \psi_{ot} &= 0,00 \\ \psi_f &= 0,20\end{aligned}$$

ICD5



$$\begin{aligned}\psi_e &= 0,00 \\ \psi_{ot} &= 0,00 \\ \psi_f &= 0,10\end{aligned}$$

ICD6



$$\begin{aligned}\psi_e &= 0,00 \\ \psi_{ot} &= 0,00 \\ \psi_f &= 0,10\end{aligned}$$



DUVAR



HAFİF DUVAR



YALITIM

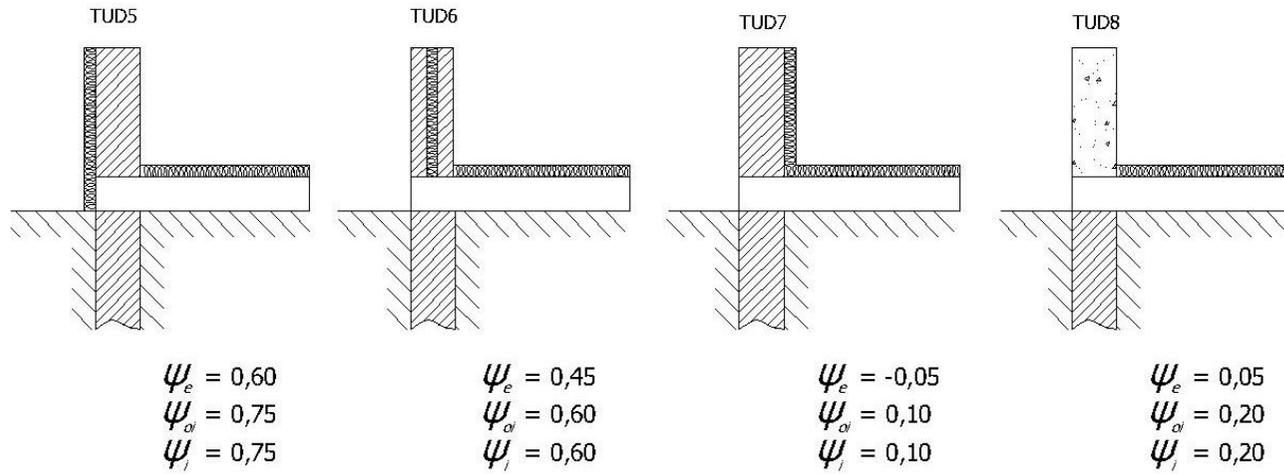
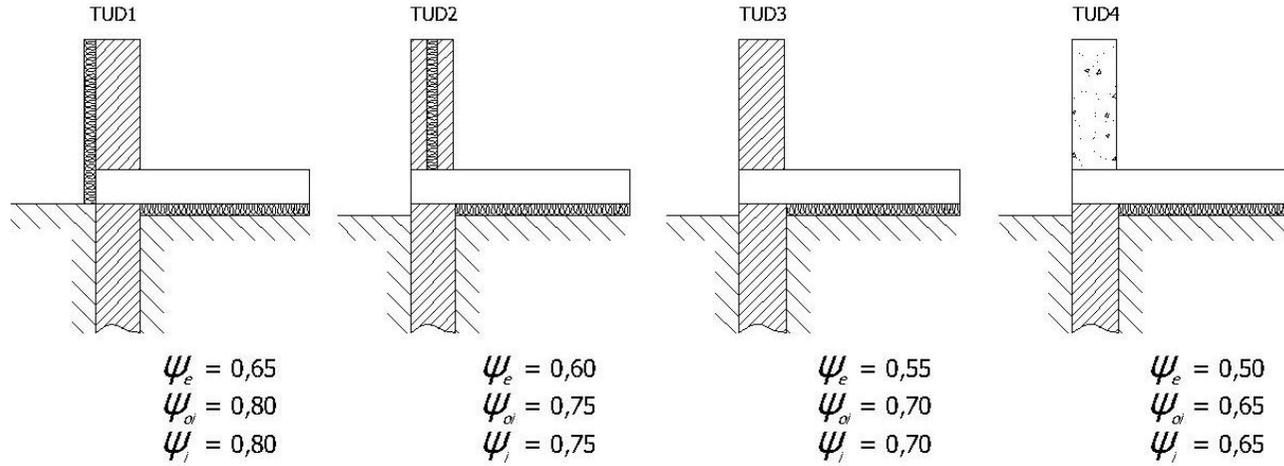


DÖŞEME/KOLON



PENCERE ÇERÇEVESİ

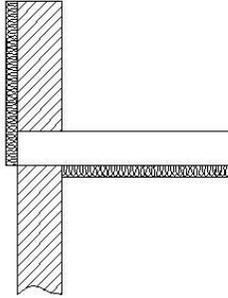
TOPRAK ÜSTÜ DÖŞEME



 DUVAR
  HAFİF DUVAR
  YALITIM
  DÖŞEME/KOLON
  PENCERE ÇERÇEVESİ

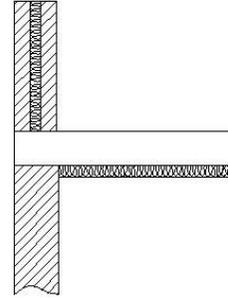
ASMA GİRİŞ KATLAR

AGK1



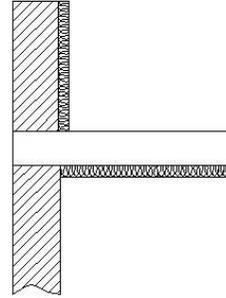
$$\begin{aligned}\psi_e &= 0,75 \\ \psi_{af} &= 0,95 \\ \psi_f &= 0,95\end{aligned}$$

AGK2



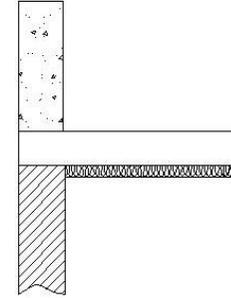
$$\begin{aligned}\psi_e &= 0,65 \\ \psi_{af} &= 0,85 \\ \psi_f &= 0,85\end{aligned}$$

AGK3



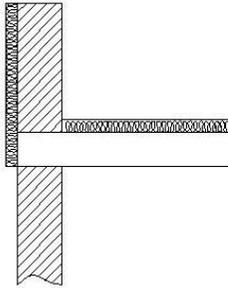
$$\begin{aligned}\psi_e &= 0,55 \\ \psi_{af} &= 0,75 \\ \psi_f &= 0,75\end{aligned}$$

AGK4



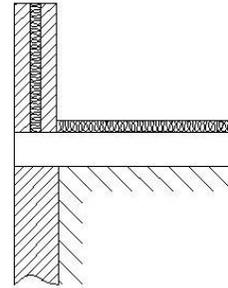
$$\begin{aligned}\psi_e &= 0,50 \\ \psi_{af} &= 0,70 \\ \psi_f &= 0,70\end{aligned}$$

AGK5



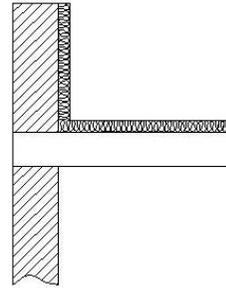
$$\begin{aligned}\psi_e &= 0,60 \\ \psi_{af} &= 0,60 \\ \psi_f &= 0,80\end{aligned}$$

AGK6



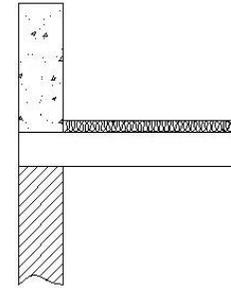
$$\begin{aligned}\psi_e &= 0,45 \\ \psi_{af} &= 0,65 \\ \psi_f &= 0,65\end{aligned}$$

AGK7



$$\begin{aligned}\psi_e &= -0,10 \\ \psi_{af} &= 0,10 \\ \psi_f &= 0,10\end{aligned}$$

AGK8



$$\begin{aligned}\psi_e &= 0,00 \\ \psi_{af} &= 0,20 \\ \psi_f &= 0,20\end{aligned}$$



DUVAR



HAFIF DUVAR



YALITIM



DÖŞEME/KOLON



PENCERE ÇERÇEVESİ

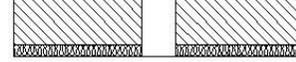
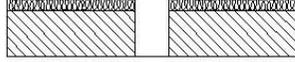
KOLON-DİKME

KL1

KL2

KL3

KL4



$$\begin{aligned}\psi_e &= 1,30 \\ \psi_{ol} &= 1,30 \\ \psi_i &= 1,30\end{aligned}$$

$$\begin{aligned}\psi_e &= 1,20 \\ \psi_{ol} &= 1,20 \\ \psi_i &= 1,20\end{aligned}$$

$$\begin{aligned}\psi_e &= 1,15 \\ \psi_{ol} &= 1,15 \\ \psi_i &= 1,15\end{aligned}$$

$$\begin{aligned}\psi_e &= 0,90 \\ \psi_{ol} &= 0,90 \\ \psi_i &= 0,90\end{aligned}$$



DUVAR



HAFIF DUVAR



YALITIM



DÖŞEME/KOLON



PENCERE ÇERÇEVESİ