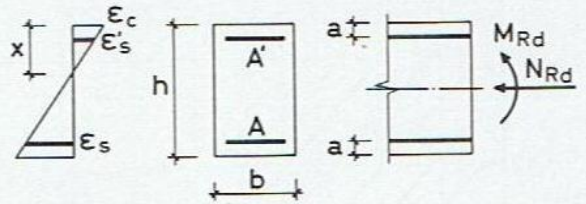
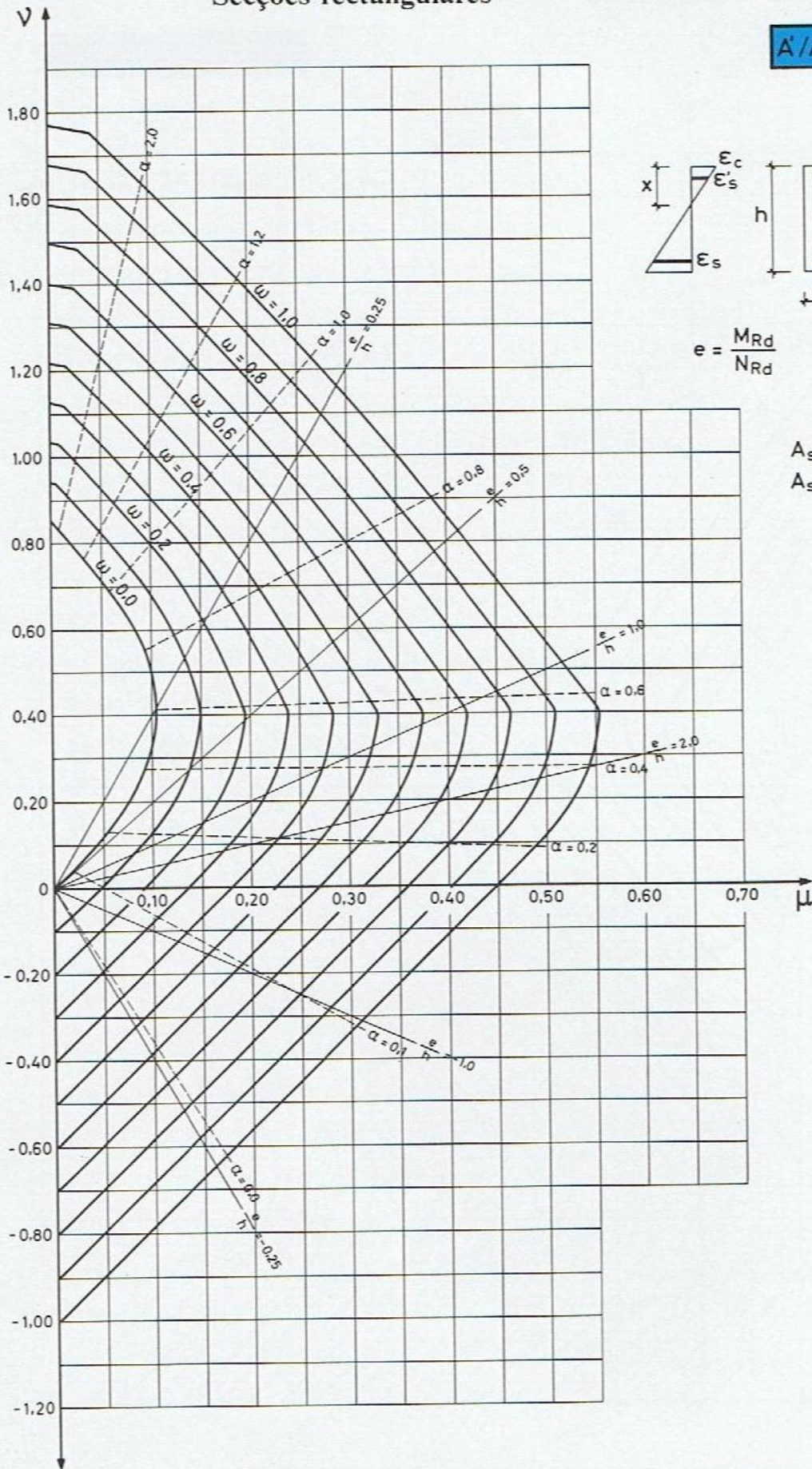


ÁBACO 32
 FLEXÃO COMPOSTA
 Seções rectangulares

A500 $f_{syd} = 435 \text{ MPa}$

$A'/A = 1,0$ $a/h = 0,05$



$$e = \frac{M_{Rd}}{N_{Rd}} \quad \alpha = \frac{x}{h}$$

A_s - Área total de armadura
 $A_s = A + A'$

$$\nu = \frac{N_{Rd}}{bh f_{cd}}$$

$$\mu = \frac{M_{Rd}}{bh^2 f_{cd}}$$

$$\omega = \frac{A_s}{bh} \cdot \frac{f_{syd}}{f_{cd}}$$

Classe do betão	B15	B20	B25	B30	B35	B40	B45	B50	B55
f_{cd} (MPa)	8,0	10,7	13,3	16,7	20,0	23,3	26,7	30,0	33,3