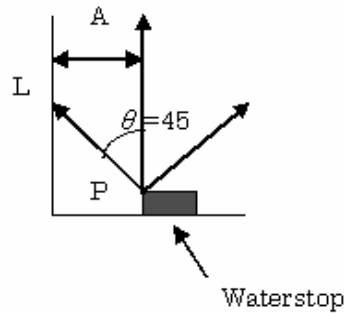


## Calculation of minimum concrete coverage for ADEKA ULTRASEAL P-201

Our newest calculation for minimum coverage for P-201 is as follows.



$$\begin{aligned}
 P &= p * B & (1) \\
 P' &= P * \cos\theta & (2) \\
 L &= P'/\tau_a & (3) \\
 A &= L * \sin\theta & (4)
 \end{aligned}$$

P	repulsive force (kgf/cm)
p	swelling pressure of waterstop (kgf/cm <sup>2</sup> )
B	width of waterstop (cm)
P'	swelling pressure of waterstop for 45 direction (kgf/cm)
L	Length of 45 direction (cm)
$\tau_a$	allowable shear stress of concrete (kg/cm <sup>2</sup> )
A	Minimum coverage (cm)

In this case,  $p = 60$  (kgf/cm<sup>2</sup>) for ADEKA ULTRASEAL P-201 from our data.

strength of concrete	(psi)	2600	2600	2600
	(kgf/cm <sup>2</sup> )	180	180	180
$\tau_a$		5.3	5.3	5.3
p		60	60	60
B	(cm)	0.64	0.95	1.27
	(inch)	1/4	3/8	1/2
P		38.1	57.15	76.2
P'		26.9	40.4	53.9
L		5.1	7.6	10.2
A	(cm)	3.6	5.4	7.2
	(inch)	1.4	2.1	2.8
minimum coverage	(cm)	4	6	8
	(inch)	2	3	4