ADEKA ULTRASEAL®

P-201 Calculation of Minimum Concrete Coverage
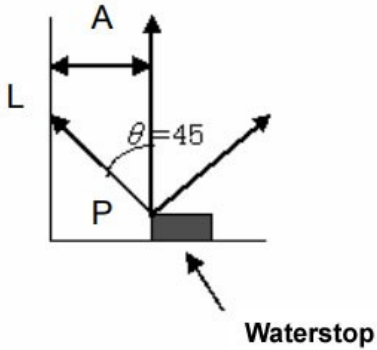
OCM

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

$$P = p * B \quad (1)$$
$$P' = P * \cos\theta \quad (2)$$
$$L = P'/\text{тa} \quad (3)$$
$$A = L * \sin\theta \quad (4)$$

P	Repulsive Force (kgf/cm)
p	Swelling Pressure of Waterstop (kgf/cm^2)
B	Width of Waterstop (cm)
P'	Swelling Pressure of Waterstop for 45 direction (kgf/cm)
L	Length of 45 Direction (cm)
Ta	Allowable Shear Stress of Concrete (kg/cm^2)
A	Minimum Coverage (cm)

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

Use this table as a guideline to determine suitability for product use. The table is the best estimation by the manufacturer of

Strength of Concrete	(psi)	2600	2600	2600	4300	4300	4300
	(kgf/cm^2)	180	180	180	300	300	300
Ta		5.3	5.3	5.3	6.4	6.4	6.4
p		60	60	60	60	60	60
B	(cm)	0.64	0.95	1.27	0.64	0.95	1.27
	(inch)	1/4	3/8	1/2	1/4	3/8	1/2
P		38.1	57.15	76.2	38.1	57.15	76.2
P'		26.9	40.4	53.9	26.9	40.4	53.9
L		5.1	7.6	10,2	4.2	6.3	8.4
A	(cm)	3.6	5.4	7.2	3.0	4.5	6.0
	(inch)	1.4	2.1	2.8	1.2	1.8	2.3
Minimum Coverage	(cm)	4	6	8	3.5	5	7
	(inch)	2	3	4	1.5	2	3

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