

# DENKA QUICKSET

## Super Quick Hardening Additives

### Description

**DENKA QUICKSET** is comprising a mixture of quick-hardening additives and calcium sulfo aluminate; and is most suitable for emergency works where construction time is limited.

### Features

- 20~30N/mm<sup>2</sup> strength obtainable in 2~3 hours
- Similar hardening performance even at low winter temperatures with S-5
- Reduces slump loss
- Increases cracking resistance
- Non-bleeding, minimal shrinkage
- 2 types available, S-5 (~15 minutes handling time) and S-30(~30 minutes handling time)

### Applications

- Highways, railways, bridges, piers etc. where construction time is limited
- Construction at low temperatures
- Concrete foundation construction, repair
- Wall, floor repairs
- Sludge, industrial waste solidification
- Factory interior repairs

### Packaging

- 25kg paper bags
- 1000kg bulk bags

### Shelf Life

- 6 months from production date
- Determine the production date by reference to the lot number. A lot number of "1AXXX" corresponds to production in Jan 2001; "2BXXX" to Feb 2002 and so on.

## Standard Mix Proportions and Technical Data

### • Standard Concrete Mix Proportions (Arbitrary Values)

Mix no.	Gravel size (mm)	Slump (cm)	Air amount <sup>1</sup> (%)	W/C <sup>2</sup> (%)	Sand (%)	Unit amount (kg/m <sup>3</sup> )				
						Water	QUICKSET	Sand	Gravel	Water-reducing agent
1	25	8±2.5	3.0±1.0	45	48	158	350	876	964	-
2	25	8±2.5	3.0±1.0	36	43	136	400	783	1053	8.0
3	25	8±2.5	2.0±1.0	34	40	144	450	712	1084	9.0
4	25	8±2.5	2.0±1.0	32	37	150	500	636	1099	10.0
5	25	8±2.5	2.0±1.0	30	35	154	550	582	1097	11.0

<sup>1</sup>No air-entraining agents are used.

<sup>2</sup>W/C includes water-reducing agents.

### • Concrete Physical Properties (Arbitrary Values)

Compressive strengths of the above mix proportions are as below.

Temp. (°C)	QUICKSET Type	Mix no.	Compressive strength (N/mm <sup>2</sup> )						Workability (mins)
			2h	3h	6h	Day 1	Day 7	Day 28	
5	S-5	1	-	13.8	16.8	22.5	28.5	32.6	13
		2	12.9	20.6	23.6	28.5	34.2	38.3	15
		3	16.0	25.5	28.4	34.8	40.5	44.9	18
		4	17.8	29.2	32.5	39.8	46.3	50.5	18
		5	21.0	31.8	35.9	44.7	52.1	55.8	18
20	S-5	1	-	17.2	19.7	25.7	30.4	34.7	15
		2	16.2	23.5	26.5	31.4	37.2	41.2	18
		3	18.5	27.5	30.4	37.2	44.1	51.0	20
		4	20.7	30.8	35.1	41.8	50.3	56.6	20
		5	22.9	34.1	39.0	46.8	55.3	61.7	20
30 <sup>1</sup>	S-30	1	-	17.1	21.8	26.6	32.4	36.3	13
		2	15.2	23.8	27.3	31.4	38.5	42.5	15
		3	18.2	27.6	31.5	36.6	44.2	51.0	18
		4	19.9	31.6	35.3	41.2	49.8	55.9	18

<sup>1</sup>S-30 was used at mixing temperatures of above 25°C.

### • Standard Mortar Mix Proportions (Arbitrary Values)

Mix no.	Cement to sand ratio	Flow value	Air amount (%)	Unit amount (kg/m <sup>3</sup> )		
				Water	QUICKSET	Sand
1	1:1.5	200±20	3.0	259	786	1179
2	1:2.0	200±20	3.0	245	662	1324
3	1:3.0	200±20	3.0	246	491	1473

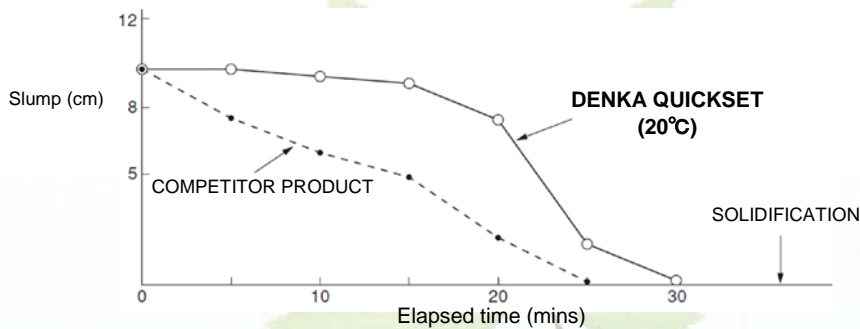
### • Mortar Physical Properties (Arbitrary Values)

Compressive strengths of the above mix proportions are as below.

Temp. (°C)	QUICKSET type	Mix no.	Compressive strength (N/mm <sup>2</sup> )					Workability (mins)
			3h	6h	Day 1	Day 7	Day 28	
5	S-5	1	23.9	33.8	43.1	51.8	57.3	15
		2	21.7	29.7	36.8	43.7	51.4	15
		3	6.2	10.5	14.8	19.8	24.6	15
20	S-5	1	28.8	37.8	47.1	55.8	62.4	20
		2	25.7	33.7	41.3	49.2	56.4	20
		3	10.2	14.5	18.8	24.2	29.4	20
30 <sup>1</sup>	S-30	1	29.5	38.6	47.6	56.8	62.4	15
		2	26.1	33.7	41.3	49.2	56.4	15
		3	10.8	15.2	19.6	25.6	30.5	15

<sup>1</sup>S-30 was used at mixing temperatures of above 25°C.

- Slump loss in **DENKA QUICKSET** is minimal; improving work performance. If longer setting times are required, a retarding agent (e.g. DENKA SETTER D-500) can be used to adjust the setting time as necessary.



## Handling Precautions

- Refer to the Safety Data Sheet (SDS) before use.
- Take note that hardening time may be extended when using **DENKA QUICKSET** in the milk form.
- Use ASAP once mixed as the mixed cement will rapidly harden.
- Wear protective gear (goggles, mask, gloves, and rubber boots) while handling the product. Do not dispose of the product in drains.
- If any part of the body comes into contact with **DENKA QUICKSET**, wash copiously with water as it is alkaline.
- Once opened, the product should be used up completely. Otherwise, reseal for storage.
- The product should be stored in a dry area, indoors, and out of direct sunlight.
- For further information, please contact DENKA.

## Limitation of Liability

- The information contained in this brochure provides general advice for potential customers of DENKA about the basic properties and characteristics of various DENKA products (hereafter referred to as “the Product Information”). DENKA makes no warranty or representation as to the entire accuracy or completeness of the Product Information in this brochure.
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DENKA reserves the right to change the Product Information from time to time at its discretion and without notice.

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