

# CERTIFICATE OF QUALITY

## EcoFast® Type HE Cement

NZS 3122:2009



Issued to: National Sales Manager

Test Report No: 25#188

info@goldenbay.co.nz

| Code                       | Week Ending | Specific Surface Area | Normal Consistency | Initial Set | Final Set | Sound-ness | Compressive Strength |          |          |         |          |       |        |        |         |     | Free Lime | Sodium Equivalent (NaEq) | Sulphur Trioxide (SO <sub>3</sub> ) |
|----------------------------|-------------|-----------------------|--------------------|-------------|-----------|------------|----------------------|----------|----------|---------|----------|-------|--------|--------|---------|-----|-----------|--------------------------|-------------------------------------|
|                            |             |                       |                    |             |           |            | ISO-CEN              |          |          |         | Concrete |       |        |        |         |     |           |                          |                                     |
|                            |             |                       |                    |             |           |            | 1 day                | 3 days   | 7 days   | 28 days | Slump    | 1 day | 3 days | 7 days | 28 days |     |           |                          |                                     |
| Mean                       |             | 520                   | 33.1               | 134         | 3:18      | 1          | 23.3                 | 41.4     | 53.3     | 66.6    | 85.6     | 15.1  | 37.9   | 46.2   | 55.9    | 1.5 | 0.56      | 2.38                     |                                     |
| Standard Deviation         |             | 12                    | 0.7                | 15          | 0:13      | 0.4        | 1.3                  | 1.9      | 2.5      | 1.9     | 8.2      | 2.0   | 4.1    | 3.6    | 3.4     | 0.2 | 0.02      | 0.06                     |                                     |
| Min                        |             | 500                   | 31.7               | 105         | 3:00      | 0          | 19.8                 | 36.1     | 48.1     | 64.2    | 70.0     | 11.0  | 32.0   | 41.5   | 49.5    | 1.2 | 0.52      | 2.15                     |                                     |
| Max                        |             | 545                   | 34.6               | 165         | 3:45      | 2          | 25.5                 | 44.4     | 56.8     | 70.9    | 110.0    | 20.0  | 48.0   | 56.0   | 64.0    | 1.9 | 0.59      | 2.48                     |                                     |
| NZS 3122:2009 Requirements |             |                       |                    | 45 min      | 6:00 max  | 5 max      |                      | 25.0 min | 40.0 min |         |          |       |        |        |         |     | 0.6 max   | 3.5 max                  |                                     |
| Units                      |             | m <sup>2</sup> /kg    | %                  | minutes     | hrs:mins  | mm         | Mpa                  | MPa      | MPa      | MPa     | mm       | Mpa   | MPa    | MPa    | MPa     | %   | %         | %                        |                                     |
| 251127-327-HE              | 27/11/25    | 520                   | 33.4               | 105         | 3:00      | 0          | 22.9                 | 42.0     |          |         | 70       | 15.0  | 36.5   |        |         | 1.3 | 0.58      | 2.40                     |                                     |
| 251110-639-HE              | 10/11/25    | 525                   | 32.2               | 105         | 3:00      | 1          | 22.7                 | 42.2     | 54.6     |         | 90       | 14.5  | 38.0   | 45.5   |         | 1.3 | 0.58      | 2.38                     |                                     |
| 251102-112-HE              | 02/11/25    | 515                   | 32.7               | 135         | 3:15      | 1          | 24.0                 | 42.9     | 55.6     | 70.1    | 90       | 13.5  | 37.5   | 44.5   | 52.5    | 1.4 | 0.56      | 2.43                     |                                     |
| 251016-395-HE              | 16/10/25    | 520                   | 33.3               | 120         | 3:15      | 1          | 25.4                 | 44.4     | 55.8     | 70.9    | 90       | 15.0  | 39.0   | 46.5   | 57.5    | 1.5 | 0.59      | 2.41                     |                                     |
| 250928-832-HE              | 28/09/25    | 520                   | 33.5               | 135         | 3:15      | 1          | 23.8                 | 42.1     | 55.0     | 67.0    | 90       | 15.0  | 39.5   | 46.5   | 55.0    | 1.2 | 0.58      | 2.40                     |                                     |
| 250908-974-HE              | 08/09/25    | 510                   | 33.6               | 120         | 3:00      | 1          | 23.0                 | 40.6     | 54.5     | 68.8    | 90       | 16.0  | 39.0   | 47.0   | 58.5    | 1.5 | 0.56      | 2.38                     |                                     |
| 250825-423-HE              | 25/08/25    | 545                   | 34.1               | 135         | 3:30      | 1          | 23.7                 | 42.9     | 55.4     | 67.5    | 80       | 20.0  | 48.0   | 54.0   | 64.0    | 1.6 | 0.57      | 2.43                     |                                     |
| 250803-476-HE              | 03/08/25    | 535                   | 33.6               | 135         | 3:30      | 1          | 22.6                 | 41.3     | 55.0     | 65.5    | 80       | 15.0  | 37.5   | 45.0   | 56.5    | 1.7 | 0.56      | 2.34                     |                                     |
| 250725-895-HE              | 25/07/25    | 515                   | 33.6               | 135         | 3:15      | 1          | 22.8                 | 41.7     | 55.0     | 67.1    | 110      | 15.0  | 36.0   | 47.0   | 56.0    | 1.6 | 0.56      | 2.43                     |                                     |
| 250706-288-HE              | 06/07/25    | 510                   | 33.4               | 135         | 3:15      | 0          | 24.9                 | 40.6     | 53.7     | 64.2    | 90       | 17.5  | 40.5   | 46.5   | 56.5    | 1.8 | 0.53      | 2.39                     |                                     |
| 250704-070-HE              | 04/07/25    | 515                   | 34.6               | 150         | 3:30      | 0          | 22.0                 | 41.7     | 55.1     | 64.6    | 90       | 16.5  | 38.0   | 46.5   | 54.0    | 1.8 | 0.52      | 2.32                     |                                     |
| 250621-507-HE              | 21/06/25    | 540                   | 34.4               | 105         | 3:00      | 1          | 23.5                 | 41.0     | 53.1     | 65.6    | 80       | 18.5  | 43.5   | 48.5   | 58.5    | 1.9 | 0.57      | 2.45                     |                                     |
| 250528-476-HE              | 28/05/25    | 540                   | 33.2               | 120         | 3:00      | 1          | 24.0                 | 42.1     | 55.7     | 68.4    | 90       | 14.5  | 36.5   | 49.0   | 58.0    | 1.7 | 0.56      | 2.39                     |                                     |
| 250512-938-HE              | 12/05/25    | 530                   | 33.2               | 135         | 3:15      | 0          | 23.5                 | 43.5     | 56.8     | 67.6    | 80       | 17.0  | 41.0   | 49.0   | 58.0    | 1.3 | 0.57      | 2.38                     |                                     |
| 250418-786-HE              | 18/04/25    | 510                   | 32.4               | 135         | 3:00      | 1          | 22.7                 | 43.3     | 55.0     | 68.2    | 80       | 17.5  | 46.5   | 56.0   | 62.5    | 1.4 | 0.58      | 2.36                     |                                     |
| 250327-064-HE              | 27/03/25    | 520                   | 31.7               | 135         | 3:30      | 2          | 22.9                 | 40.5     | 52.7     | 65.8    | 80       | 14.0  | 38.5   | 49.0   | 57.5    | 1.2 | 0.58      | 2.31                     |                                     |
| 250214-916-HE              | 14/02/25    | 500                   | 33.3               | 150         | 3:30      | 1          | 22.2                 | 42.7     | 53.4     | 66.8    | 80       | 15.5  | 40.0   | 47.0   | 57.0    | 1.4 | 0.55      | 2.38                     |                                     |
| 241220-145-HE              | 20/12/24    | 525                   | 32.5               | 165         | 3:45      | 1          | 25.5                 | 43.6     | 54.6     | 68.0    | 80       | 11.0  | 32.0   | 42.0   | 54.0    | 1.2 | 0.54      | 2.36                     |                                     |
| 241118-955-HE              | 18/11/24    | 515                   | 32.6               | 135         | 3:15      | 1          | 19.8                 | 36.1     | 48.1     | 64.4    | 80       | 13.5  | 34.5   | 43.5   | 54.0    | 1.2 | 0.54      | 2.15                     |                                     |
| 241016-523-HE              | 16/10/24    | 525                   | 32.7               | 150         | 3:15      | 2          | 21.8                 | 38.3     | 49.3     | 64.7    | 80       | 13.5  | 33.5   | 44.0   | 52.5    | 1.6 | 0.57      | 2.33                     |                                     |
| 240925-558-HE              | 25/09/24    | 500                   | 32.9               | 135         | 3:30      | 0          | 25.3                 | 38.8     | 52.7     | 66.2    | 80       | 14.5  | 32.5   | 41.5   | 51.0    | 1.3 | 0.57      | 2.42                     |                                     |
| 240909-114-HE              | 09/09/24    | 535                   | 32.7               | 135         | 3:15      | 1          | 22.8                 | 38.9     | 49.4     | 64.7    | 90       | 11.5  | 32.5   | 42.5   | 55.0    | 1.7 | 0.55      | 2.36                     |                                     |
| 240825-361-HE              | 25/08/24    | 525                   | 32.9               | 135         | 3:15      | 0          | 23.6                 | 40.7     | 50.5     | 65.2    | 90       | 15.5  | 35.0   | 42.0   | 52.5    | 1.5 | 0.55      | 2.41                     |                                     |
| 240814-686-HE              | 14/08/24    | 510                   | 32.8               | 150         | 3:30      | 1          | 23.4                 | 41.1     | 49.0     | 64.9    | 100      | 12.5  | 33.0   | 42.0   | 49.5    | 1.6 | 0.53      | 2.29                     |                                     |
| 240729-144-HE              | 29/07/24    | 505                   | 33.1               | 150         | 3:45      | 1          | 24.7                 | 42.2     | 50.3     | 65.7    | 80       | 15.5  | 39.0   | 44.5   | 56.0    | 1.6 | 0.59      | 2.48                     |                                     |

The above samples were tested as received in accordance with the current terms of accreditation and methods stated in NZS 3122:2009 with the exception of:

Chemical Analysis to ASTM C114-23

All concrete testing conducted in accordance with NZS 3112:1986.

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*Vincent Lane*

Vincent Lane  
Works Chemist



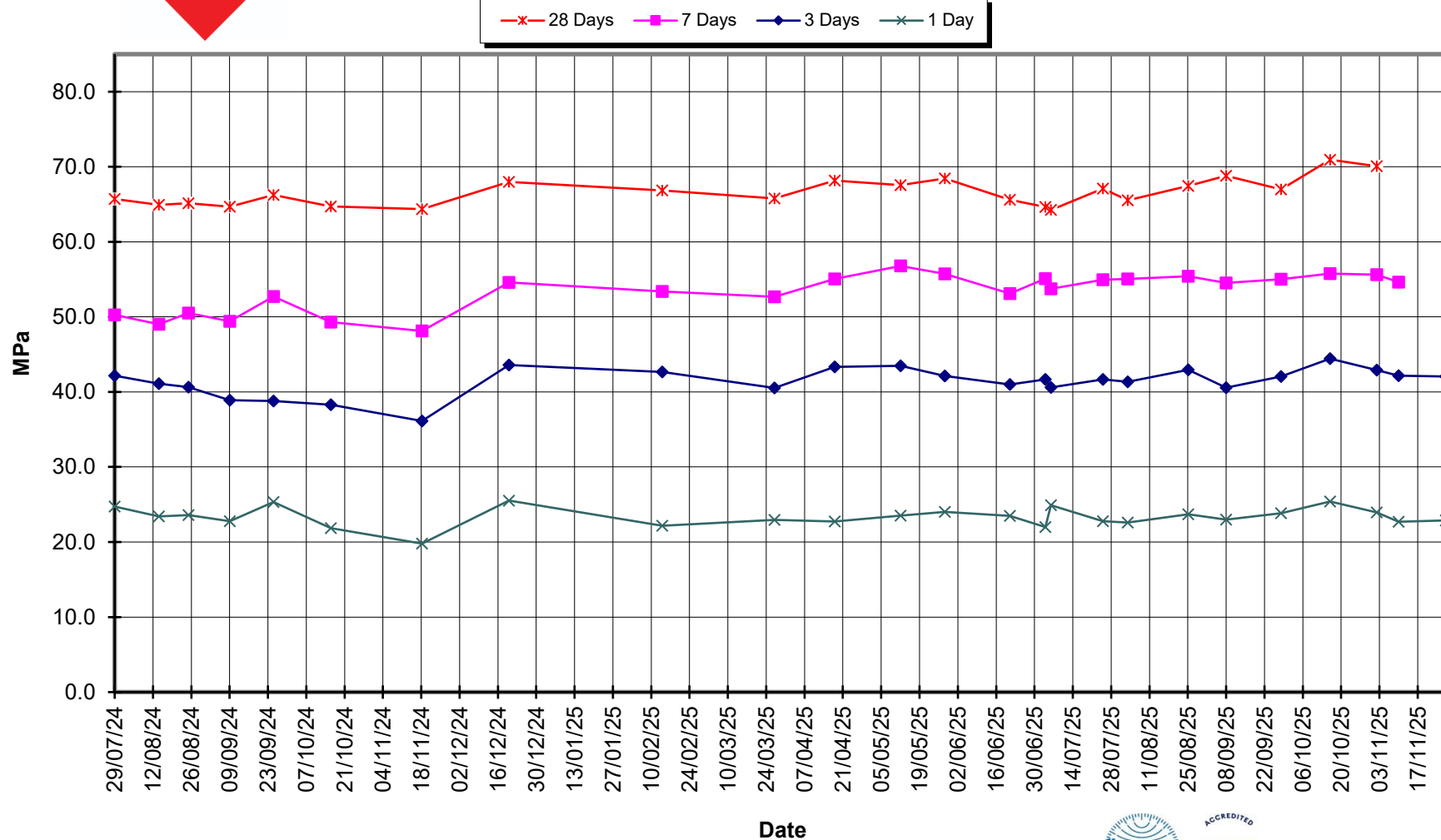
Portland Works, Portland, Whangarei 0178

Date issued: 05/12/25

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**EcoFast®**  
**Type HE Cement**  
**Compressive Strength ISO-CEN Mortar**





EcoFast®  
Type HE Cement

Compressive Strength Concrete



—x— 28 Days    —■— 7 Days    —◆— 3 Days    —x— 1 Day    —\*— Slump

