



Product Carbon Footprint

Verification Opinion Statement

This is to verify that:

Taiwan Cement Corporation Taipei Product Plant No. 310, Sec. 1, Datong Rd. Xizhi Dist., New Taipei City 221006 Taiwan

台灣水泥股份有限公司 台北水泥製品廠 臺灣新北市汐止區 大同路一段 310 號 221006

Holds Statement No:

PCFV 777033

As a result of carrying out the verification of product life cycle greenhouse gas emissions, it is the opinion of BSI with reasonable assurance that:

- The product carbon footprint with the declared unit of one cubic meter series ready-mixed concrete is verified as following table.
- No material misstatements in this product life cycle greenhouse gas emission statement were revealed. The product life cycle GHG data quality was verified to be acceptable against the requirements of ISO 14067:2018.

This statement shall be valid for a maximum period of two years after the latest issue date on this certificate. Should there be a change in the life cycle of the product whose GHG emissions are being assessed, the validity of this opinion statement will cease.

Managing Director BSI Taiwan, Peter Pu

Originally Registration Date: 2022-11-03

Effective Date: 2022-11-03

Latest Revision Date: 2022-11-03

For and on behalf of BSI:

Expiry Date: 2024-11-02

Page 1 of 13

...making excellence a habit."

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Location

Taiwan Cement Corporation Taipei Product Plant No. 310, Sec. 1, Datong Rd. Xizhi Dist., New Taipei City 221006 Taiwan 台灣水泥股份有限公司 台北水泥製品廠 臺灣新北市汐止區 大同路一段 310 號 221006 Verification Information

The product carbon footprint with the declared unit of one cubic meter series ready-mixed concrete is verified as following table.

Additional information

Product related information is as follows:

- System boundary for this product: Cradle to Gate
 The product system boundary is consistent with its system boundary definition in the PCF report for product
 carbon footprint, which involves the acquisition of materials, process activity and the transportation of
 materials in the product life cycle.
- The data in this product life cycle greenhouse gas inventory report is from 2021-01-01 to 2021-12-31.
- The site-specific data include related facilities from its own processes under the operational control of the organization and individual processes under the financial or operational control of the organization undertaking the CFP study.
- The secondary data include relative factors from EPA Carbon Footprint Calculation Platform and LCA database SimaPro 9.4.0 ecoinvent 3.8.

Originally Registration Date: 2022-11-03

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Page 2 of 13

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台北水泥製品廠

| Declared Unit of Product | Specification | Product carbon footprint |
|--------------------------------------|---------------|----------------------------|
| 產品宣告單位 | 產品規格 | (kgCO ₂ e/Unit) |
| | 1000psi | 156.05 |
| | 1142psi | 154.21 |
| | 1500psi | 165.45 |
| | 2000psi | 190.81 |
| | 2500psi | 183.88 |
| 每立方公尺預拌混凝土 | 3000psi | 214.51 |
| | 3500psi | 249.94 |
| one cubic meter ready-mixed concrete | 4000psi | 250.09 |
| | 4500psi | 284.71 |
| | 5000psi | 285.90 |
| | 6000psi | 311.50 |
| | 7000psi | 344.05 |
| | 8000psi | 380.08 |
| | 10000psi | 572.22 |

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Page 3 of 13

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桃園分廠

| Declared Unit of Product 產品宣告單位 | Specification 產品規格 | Product carbon footprint (kgCO2e/Unit) |
|--------------------------------------|-----------------------|---|
| | 1500psi | 113.52 |
| | 2000psi | 148.95 |
| | 2500psi | 183.17 |
| | 3000psi | 194.88 |
| 台上十八口石桃田农人 | 3500psi | 212.36 |
| 每立方公尺預拌混凝土 | 4000psi | 230.40 |
| one cubic meter ready-mixed concrete | 4500psi | 257.46 |
| | 5000psi | 317.17 |
| | 6000psi | 320.86 |
| | 7000psi | 316.45 |
| | 8000psi | 519.72 |

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Page 4 of 13

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中壢分廠

| Declared Unit of Product | Specification | Product carbon footprint |
|--|---------------|----------------------------|
| 產品宣告單位 | 產品規格 | (kgCO ₂ e/Unit) |
| | 1142psi | 140.31 |
| | 1500psi | 119.01 |
| | 2000psi | 150.15 |
| | 2500psi | 144.18 |
| 每立方公尺預拌混凝土 one cubic meter ready-mixed concrete | 3000psi | 206.47 |
| | 3500psi | 197.53 |
| | 4000psi | 238.78 |
| | 4500psi | 320.36 |
| | 5000psi | 289.19 |
| | 6000psi | 336.96 |
| | 7000psi | 338.10 |
| | 8000psi | 402.46 |

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Page 5 of 13

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土城分廠

| Declared Unit of Product 產品宣告單位 | Specification 產品規格 | Product carbon footprint |
|--------------------------------------|-----------------------|----------------------------|
| | | (kgCO ₂ e/Unit) |
| | 1500psi | 143.78 |
| | 2000psi | 216.65 |
| | 2500psi | 193.59 |
| | 3000psi | 236.26 |
| 每立方公尺預拌混凝土 | 3500psi | 235.89 |
| | 4000psi | 286.01 |
| one cubic meter ready-mixed concrete | 4500psi | 299.36 |
| | 5000psi | 301.38 |
| | 6000psi | 344.12 |
| | 7000psi | 396.07 |
| | 8000psi | 421.44 |

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Page 6 of 13

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八德分廠

| Declared Unit of Product | Specification | Product carbon footprint |
|--|---------------|----------------------------|
| 產品宣告單位 | 產品規格 | (kgCO ₂ e/Unit) |
| | 1500psi | 101.14 |
| | 2000psi | 141.18 |
| | 2500psi | 145.83 |
| 每立方公尺預拌混凝土 one cubic meter ready-mixed concrete | 3000psi | 195.74 |
| | 3500psi | 196.37 |
| | 4000psi | 220.07 |
| | 4500psi | 239.76 |
| | 5000psi | 294.56 |
| | 6000psi | 300.79 |
| | 7000psi | 323.53 |

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Page 7 of 13

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龜山分廠

| Declared Unit of Product | Specification | Product carbon footprint |
|--|---------------|----------------------------|
| 產品宣告單位 | 產品規格 | (kgCO ₂ e/Unit) |
| | 1000psi | 89.07 |
| | 1500psi | 93.33 |
| | 2000psi | 151.57 |
| | 2500psi | 146.41 |
| 每立方公尺預拌混凝土 one cubic meter ready-mixed concrete | 3000psi | 232.19 |
| | 3500psi | 227.35 |
| | 4000psi | 241.16 |
| | 4500psi | 303.96 |
| | 5000psi | 303.09 |
| | 6000psi | 306.68 |
| | 7000psi | 374.96 |
| | 8000psi | 357.71 |

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Page 8 of 13

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新竹分廠

| Declared Unit of Product 產品宣告單位 | Specification 產品規格 | Product carbon footprint (kgCO2e/Unit) |
|--------------------------------------|-----------------------|---|
| | 1500psi | 116.97 |
| | 2000psi | 164.14 |
| | 2500psi | 168.08 |
| 与上小口石地田田 1 | 3000psi | 187.99 |
| | 3500psi | 205.43 |
| 每立方公尺預拌混凝土 | 4000psi | 261.35 |
| one cubic meter ready-mixed concrete | 4500psi | 267.75 |
| | 5000psi | 310.04 |
| | 6000psi | 326.05 |
| | 7000psi | 369.00 |
| | 8000psi | 487.43 |

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宜蘭分廠

| Declared Unit of Product | Specification | Product carbon footprint |
|--|---------------|----------------------------|
| 產品宣告單位 | 產品規格 | (kgCO ₂ e/Unit) |
| | 1000psi | 101.68 |
| | 1500psi | 107.48 |
| 每立方公尺預拌混凝土 one cubic meter ready-mixed concrete | 2000psi | 152.36 |
| | 2500psi | 149.75 |
| | 3000psi | 175.50 |
| | 3500psi | 191.00 |
| | 4000psi | 246.86 |
| | 4500psi | 255.57 |
| | 5000psi | 329.68 |
| | 6000psi | 427.12 |

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Page 10 of 13

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桃園二廠

| Declared Unit of Product 產品宣告單位 | Specification 產品規格 | Product carbon footprint (kgCO ₂ e/Unit) |
|--------------------------------------|-----------------------|--|
| | 1142psi | 127.74 |
| | 2000psi | 162.64 |
| | 2500psi | 150.18 |
| 左上上山口石地口田 」 | 3000psi | 203.14 |
| | 3500psi | 218.19 |
| 每立方公尺預拌混凝土 | 4000psi | 248.80 |
| one cubic meter ready-mixed concrete | 4500psi | 253.65 |
| | 5000psi | 321.18 |
| | 6000psi | 344.74 |
| | 7000psi | 317.95 |
| | 8000psi | 460.05 |

Originally Registration Date: 2022-11-03

Latest Revision Date: 2022-11-03

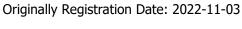
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中壢二廠

| Declared Unit of Product 產品宣告單位 | Specification 產品規格 | Product carbon footprint (kgCO ₂ e/Unit) |
|--------------------------------------|-----------------------|--|
| 每立方公尺預拌混凝土 | 2000psi | 156.79 |
| | 2500psi | 153.21 |
| | 3000psi | 206.40 |
| | 3500psi | 206.76 |
| | 4000psi | 221.36 |
| one cubic meter ready-mixed concrete | 4500psi | 247.25 |
| | 5000psi | 269.07 |
| | 6000psi | 317.84 |
| | 7000psi | 303.14 |



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Page 12 of 13

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花蓮工廠

| Declared Unit of Product 產品宣告單位 | Specification 產品規格 | Product carbon footprint (kgCO2e/Unit) |
|--|-----------------------|---|
| 每立方公尺預拌混凝土 one cubic meter ready-mixed concrete | 2000psi | 153.25 |
| | 2500psi | 185.50 |
| | 3000psi | 214.84 |
| | 3500psi | 243.31 |
| | 4000psi | 243.49 |
| | 5000psi | 282.57 |
| | 6000psi | 295.03 |

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Product Carbon Footprint

Verification Opinion Statement

This is to verify that:

Taiwan Cement Corporation Taichung Product Plant No. 785, Sec. 3, Zhongqing Rd. Daya Dist., Taichung City 428412, Taiwan 台灣水泥股份有限公司 台中水泥製品廠 臺灣台中市大雅區 中清路三段 785 號 428412

Holds Statement No:

PCFV 779465

As a result of carrying out the verification of product life cycle greenhouse gas emissions, it is the opinion of BSI with reasonable assurance that:

- The product carbon footprint with the declared unit of one cubic meter series ready-mixed concrete is verified as following table.
- No material misstatements in this product life cycle greenhouse gas emission statement were revealed. The product life cycle GHG data quality was verified to be acceptable against the requirements of ISO 14067:2018.

This statement shall be valid for a maximum period of two years after the latest issue date on this certificate. Should there be a change in the life cycle of the product whose GHG emissions are being assessed, the validity of this opinion statement will cease.

Managing Director BSI Taiwan, Peter Pu

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Effective Date: 2022-11-29

Latest Revision Date: 2022-11-29

For and on behalf of BSI:

Expiry Date: 2024-11-28

Page 1 of 7

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Location

Taiwan Cement Corporation Taichung Product Plant No. 785, Sec. 3, Zhongqing Rd. Daya Dist., Taichung City 428412, Taiwan 台灣水泥股份有限公司 台中水泥製品廠 臺灣台中市大雅區 中清路三段 785 號 428412 Verification Information

The product carbon footprint with the declared unit of one cubic meter series ready-mixed concrete is verified as following table.

Additional information

Product related information is as follows:

- System boundary for this product: Cradle to Gate
 The product system boundary is consistent with its system boundary definition in the PCF report for product
 carbon footprint, which involves the acquisition of materials, process activity and the transportation of
 materials in the product life cycle.
- The data in this product life cycle greenhouse gas inventory report is from 2021-01-01 to 2021-12-31.
- The site-specific data include related facilities from its own processes under the operational control of the organization and individual processes under the financial or operational control of the organization undertaking the CFP study.
- The secondary data include relative factors from EPA Carbon Footprint Calculation Platform and LCA database SimaPro 9.4.0 ecoinvent 3.8.

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Page 2 of 7

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台中水泥製品廠

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|--|---------------|----------------------------|
| 產品宣告單位 | 產品規格 | (kgCO ₂ e/Unit) |
| | 1000psi | 107.57 |
| | 1500psi | 117.21 |
| | 2000psi | 165.83 |
| | 2500psi | 167.71 |
| | 3000psi | 183.89 |
| 每立方公尺預拌混凝土 one cubic meter ready-mixed concrete | 3500psi | 192.18 |
| | 4000psi | 204.09 |
| | 4500psi | 231.20 |
| | 5000psi | 251.77 |
| | 6000psi | 337.39 |
| | 6500psi | 292.82 |
| | 7000psi | 358.98 |
| | 8000psi | 392.07 |
| | 10000psi | 412.73 |

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Page 3 of 7

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大肚分廠

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|--|-----------------------|---|
| | 1000psi | 124.14 |
| | 1500psi | 101.57 |
| | | |
| | 2000psi | 167.94 |
| | 2500psi | 178.90 |
| 每立方公尺預拌混凝土 one cubic meter ready-mixed concrete | 3000psi | 191.26 |
| | 3500psi | 197.26 |
| | 4000psi | 221.17 |
| | 4500psi | 227.64 |
| | 5000psi | 249.69 |
| | 6000psi | 361.17 |
| | 7000psi | 382.07 |
| | 8000psi | 409.55 |

Originally Registration Date: 2022-11-29

Latest Revision Date: 2022-11-29

Effective Date: 2022-11-29 Expiry Date: 2024-11-28

Page 4 of 7

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太平分廠

| Declared Unit of Product | Specification | Product carbon footprint |
|--|---------------|--------------------------|
| 產品宣告單位 | 產品規格 | (kgCO2e/Unit) |
| | 1000psi | 101.15 |
| | 1500psi | 100.47 |
| | 2000psi | 152.87 |
| | 2500psi | 151.80 |
| 每立方公尺預拌混凝土 one cubic meter ready-mixed concrete | 3000psi | 176.68 |
| | 3500psi | 188.21 |
| | 4000psi | 203.64 |
| | 4500psi | 223.92 |
| | 5000psi | 239.05 |
| | 6000psi | 318.92 |
| | 7000psi | 363.88 |
| | 8000psi | 385.54 |

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Page 5 of 7

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草屯分廠

| Declared Unit of Product 產品宣告單位 | Specification 產品規格 | Product carbon footprint (kgCO2e/Unit) |
|--|-----------------------|---|
| 每立方公尺預拌混凝土 one cubic meter ready-mixed concrete | 2000psi | 157.84 |
| | 2500psi | 159.40 |
| | 3000psi | 187.11 |
| | 3500psi | 198.18 |
| | 4000psi | 215.47 |
| | 5000psi | 256.36 |
| | 6000psi | 252.02 |

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Page 6 of 7

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神岡分廠

| Declared Unit of Product | Specification | Product carbon footprint |
|--|---------------|--------------------------|
| 產品宣告單位 | 產品規格 | (kgCO2e/Unit) |
| | 1000psi | 99.22 |
| | 1500psi | 90.92 |
| | 2000psi | 162.74 |
| | 2500psi | 141.90 |
| | 3000psi | 178.78 |
| 每立方公尺預拌混凝土 one cubic meter ready-mixed concrete | 3500psi | 192.30 |
| | 4000psi | 197.78 |
| | 4500psi | 220.40 |
| | 5000psi | 253.14 |
| | 5500psi | 252.88 |
| | 6000psi | 295.08 |
| | 7000psi | 398.36 |
| | 8000psi | 408.05 |
| | 10000psi | 475.46 |

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Page 7 of 7

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Product Carbon Footprint

Verification Opinion Statement

This is to verify that: Taiwan Cement Corporation Kaohsiung Cement Products Plant No. 16, Gongye 1st Rd., Renwu Dist. Kaohsiung City 814036

Taiwan

台灣水泥股份有限公司 高雄水泥製品廠 臺灣高雄市 仁武區工業一路 16 號 814036

Holds Statement No:

PCFV 780951

As a result of carrying out the verification of product life cycle greenhouse gas emissions, it is the opinion of BSI with reasonable assurance that:

• The product carbon footprint with the declared unit of one cubic meter series ready-mixed concrete is verified as following table.

• No material misstatements in this product life cycle greenhouse gas emission statement were revealed. The product life cycle GHG data quality was verified to be acceptable against the requirements of ISO 14067:2018.

This statement shall be valid for a maximum period of two years after the latest issue date on this certificate. Should there be a change in the life cycle of the product whose GHG emissions are being assessed, the validity of this opinion statement will cease.

Managing Director BSI Taiwan, Peter Pu

Originally Registration Date: 2022-12-28

Effective Date: 2022-12-28

Latest Revision Date: 2022-12-28

For and on behalf of BSI:

Expiry Date: 2024-12-27

Page 1 of 10

...making excellence a habit."

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Location

Taiwan Cement Corporation Kaohsiung Cement Products Plant No. 16, Gongye 1st Rd., Renwu Dist. Kaohsiung City 814036 Taiwan 台灣水泥股份有限公司 高雄水泥製品廠 臺灣高雄市 仁武區工業一路 16 號 814036 Verification Information

The product carbon footprint with the declared unit of one cubic meter series ready-mixed concrete is verified as following table.

Additional information

Product related information is as follows:

- System boundary for this product: Cradle to Gate
 The product system boundary is consistent with its system boundary definition in the PCF report for product
 carbon footprint, which involves the acquisition of materials, process activity and the transportation of
 materials in the product life cycle.
- The data in this product life cycle greenhouse gas inventory report is from 2021-01-01 to 2021-12-31.
- The site-specific data include related facilities from its own processes under the operational control of the
 organization and individual processes under the financial or operational control of the organization
 undertaking the CFP study.
- The secondary data include relative factors from EPA Carbon Footprint Calculation Platform and LCA database SimaPro 9.4.0 ecoinvent 3.8.

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Page 2 of 10

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高雄水泥製品廠

| Declared Unit of Product | Specification | Product carbon footprint |
|--|---------------|--------------------------|
| 產品宣告單位 | 產品規格 | (kgCO2e/Unit) |
| | 1500psi | 116.05 |
| | 2000psi | 159.56 |
| | 2500psi | 170.33 |
| | 3000psi | 196.02 |
| 每立方公尺預拌混凝土 | 3500psi | 200.94 |
| サエア公尺預升地機工 one cubic meter ready-mixed concrete | 4000psi | 236.57 |
| one cubic meter ready-mixed concrete | 4500psi | 250.16 |
| | 5000psi | 286.41 |
| | 6000psi | 299.27 |
| | 7000psi | 341.90 |
| | 8000psi | 328.06 |

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Page 3 of 10

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楠梓分廠

| Declared Unit of Product | Specification | Product carbon footprint |
|--------------------------------------|---------------|--------------------------|
| 產品宣告單位 | 產品規格 | (kgCO2e/Unit) |
| | 1500psi | 107.05 |
| | 2000psi | 155.15 |
| | 2500psi | 160.00 |
| | 3000psi | 189.72 |
| | 3500psi | 200.31 |
| 每立方公尺預拌混凝土 | 4000psi | 230.43 |
| one cubic meter ready-mixed concrete | 4500psi | 237.15 |
| one cubic meter ready-mixed concrete | 5000psi | 270.16 |
| | 5500psi | 246.82 |
| | 6000psi | 284.81 |
| | 7000psi | 313.62 |
| | 8000psi | 339.04 |
| | 10000psi | 404.29 |

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Page 4 of 10

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小港分廠

| Declared Unit of Product | Specification | Product carbon footprint |
|--------------------------------------|---------------|----------------------------|
| 產品宣告單位 | 產品規格 | (kgCO ₂ e/Unit) |
| | 1500psi | 95.83 |
| | 2000psi | 178.94 |
| | 2500psi | 151.12 |
| | 3000psi | 188.78 |
| 每立方公尺預拌混凝土 | 3500psi | 188.25 |
| one cubic meter ready-mixed concrete | 4000psi | 240.85 |
| | 4500psi | 228.82 |
| | 5000psi | 305.32 |
| | 6000psi | 269.39 |
| | 7000psi | 306.33 |

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Page 5 of 10

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路竹分廠

| Declared Unit of Product | Specification | Product carbon footprint |
|--------------------------------------|---------------|----------------------------|
| 產品宣告單位 | 產品規格 | (kgCO ₂ e/Unit) |
| | 1500psi | 107.80 |
| | 2000psi | 171.25 |
| | 2500psi | 199.50 |
| | 3000psi | 196.38 |
| 每立方公尺預拌混凝土 | 3500psi | 203.16 |
| one cubic meter ready-mixed concrete | 4000psi | 240.99 |
| | 4500psi | 303.98 |
| | 5000psi | 277.88 |
| | 6000psi | 285.34 |
| | 7000psi | 335.08 |

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Page 6 of 10

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嘉義分廠

| Declared Unit of Product | Specification | Product carbon footprint |
|--------------------------------------|---------------|--------------------------|
| 產品宣告單位 | 產品規格 | (kgCO2e/Unit) |
| | 2000psi | 153.82 |
| | 2500psi | 187.88 |
| | 3000psi | 209.77 |
| 每立方公尺預拌混凝土 | 3500psi | 230.44 |
| one cubic meter ready-mixed concrete | 4000psi | 238.73 |
| | 4500psi | 246.06 |
| | 5000psi | 272.49 |
| | 6000psi | 470.02 |

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Page 7 of 10

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台南分廠

| Declared Unit of Product 產品宣告單位 | Specification 產品規格 | Product carbon footprint (kgCO ₂ e/Unit) |
|--------------------------------------|-----------------------|--|
| | 1142psi | 150.13 |
| | 2000psi | 161.40 |
| | 2500psi | 177.50 |
| | 3000psi | 207.04 |
| たともショナは四切り | 3500psi | 223.98 |
| 每立方公尺預拌混凝土 | 4000psi | 245.72 |
| one cubic meter ready-mixed concrete | 4500psi | 225.15 |
| | 5000psi | 254.29 |
| | 5500psi | 243.48 |
| | 6000psi | 291.90 |
| | 7000psi | 290.73 |

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Page 8 of 10

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安平分廠

| Declared Unit of Product 產品宣告單位 | Specification 產品規格 | Product carbon footprint (kgCO ₂ e/Unit) |
|--------------------------------------|-----------------------|--|
| | 1142psi | 130.35 |
| | 1500psi | 158.34 |
| | 2000psi | 166.16 |
| | 2500psi | 180.67 |
| たいよいロボ地の地 | 3000psi | 205.01 |
| 每立方公尺預拌混凝土 | 3500psi | 220.86 |
| one cubic meter ready-mixed concrete | 4000psi | 240.62 |
| | 4500psi | 233.20 |
| | 5000psi | 264.88 |
| | 6000psi | 267.83 |
| | 7000psi | 301.95 |

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Expiry Date: 2024-12-27

Page 9 of 10

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善化分廠

| Declared Unit of Product 產品宣告單位 | Specification 產品規格 | Product carbon footprint (kgCO ₂ e/Unit) |
|--|-----------------------|--|
| 每立方公尺預拌混凝土 one cubic meter ready-mixed concrete | 1500psi | 143.18 |
| | 2000psi | 168.99 |
| | 2500psi | 183.60 |
| | 3000psi | 203.45 |
| | 3500psi | 218.52 |
| | 4000psi | 242.91 |
| | 5000psi | 273.02 |
| | 6000psi | 292.75 |
| | 8000psi | 444.97 |



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Expiry Date: 2024-12-27

Page 10 of 10

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