UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 6-K

Report of Foreign Private Issuer Pursuant to Rule 13a-16 or 15d-16 under the Securities Exchange Act of 1934

For the month of June 2025

Commission File Number 1-15240

JAMES HARDIE INDUSTRIES plc

(Translation of registrant's name into English)

1st Floor, Block A One Park Place Upper Hatch Street, Dublin 2, D02, FD79, Ireland (Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form20-F or Form 40-F:

Form 20-F: ⊠ Form 40-F: □

This report shall be deemed to be incorporated by reference into (i) the registrant's registration statement orForm F-4 (File No. 333-286977) and the related prospectus and (ii) the registrant's registration statements on Form S-8 (File Nos. 333-14036, 333-153446, 333-161482, 333-190551, 333-198169, 333-206470, 333-246178 and 333-253533).

Notes Offering

On June 17, 2025 (the "Issue Date"), James Hardie Industries plc (the "Company"), a public limited company incorporated and existing under the laws of Ireland, announced that its wholly-owned subsidiary, JH North America Holdings Inc. (the "Issuer"), completed its previously announced offering of \$700.0 million aggregate principal amount of 5.875% senior secured notes due 2031 (the "2031 Notes") and \$1.0 billion aggregate principal amount of 6.125% senior secured notes due 2031 Notes, the "Notes") in a private offering exempt from the registration requirements of the Securities Act of 1933, as amended (the "Securities Act").

As previously disclosed, the proceeds of the offering initially will be placed into escrow pending satisfaction of certain conditions (the "Escrow Release Conditions"), including consummation of the Company's previously announced acquisition (the "Acquisition") of the AZEK Company Inc. ("AZEK"). Upon satisfaction of the Escrow Release Conditions, the Company intends to use the net proceeds from the offering, together with borrowings under its existing senior secured credit facilities (the "Credit Facilities") and cash on hand, to finance the aggregate cash consideration in the proposed acquisition of AZEK, to repay and terminate AZEK's existing credit facility and to pay related transaction fees and expenses.

The Notes are subject to a special mandatory redemption in the event (x) the escrowed funds have not been released in connection with the consummation of the Acquisition on or prior to the Termination Date (as defined in the Agreement and Plan of Merger, dated as of March 23, 2025, as amended, among the Company, Juno Merger Sub Inc. and AZEK (the "Merger Agreement")) subject to any extension thereof pursuant to the Merger Agreement, (y) the Issuer notifies the escrow agent that the Escrow Release Conditions will not be satisfied by the Termination Date or (z) the Issuer fails to deposit amounts due into escrow. The special mandatory redemption price will be equal to 100% of the aggregate principal amount of the Notes, plus accrued and unpaid interest to, but excluding, the date of such special mandatory redemption.

The Notes were issued pursuant to an indenture, dated as of the Issue Date (the "Indenture"), by and among the Issuer, the guarantors named (as defined below) and U.S. Bank Trust Company, National Association, as trustee and as notes collateral agent.

The 2031 Notes will mature on January 31, 2031, and the 2032 Notes will mature on July 31, 2032. Interest will be payable semi-annually in arrears on each January 31 and July 31, beginning on January 31, 2026.

The Notes are jointly and severally guaranteed (the "guarantees") by each of the Company's subsidiaries (each, a "guarantor," and collectively, the "guarantors") that is or becomes a borrower or guarantor under the Credit Facilities. Until the satisfaction of the Escrow Release Conditions, the Notes and the guarantees are senior obligations of

the Issuer and the guarantors, secured only by a first-priority lien on the proceeds of the offering, together with any accrued interest thereon. Upon satisfaction of the Escrow Release Conditions, the Notes and the guarantees will be senior obligations of the Issuer and the guarantors, secured, subject to permitted liens and certain other exceptions, by first priority liens on the same assets that secure the obligations of the Issuer and the guarantors under the Credit Facilities. The liens will consist of liens on the equity interests of certain direct wholly owned material U.S. subsidiaries of the Issuer and the guarantors that are not restricted from being pledged pursuant to applicable regulatory requirements or applicable law, and subject to certain liens permitted under the Credit Facilities.

Upon satisfaction of the Escrow Release Conditions, the Notes and the guarantees will be equal in right of payment with all of the Issuer's and the guarantors' existing and future first priority lien obligations, including indebtedness under the Credit Facilities, will be senior in right of payment to the Issuer's and the guarantors' existing and future subordinated indebtedness and will be effectively senior to all senior indebtedness of the Issuer and the guarantors that is unsecured, or that is secured by a lien that is junior in priority to the liens securing the Notes and the guarantees, in each case, to the extent of the value of the assets securing the Notes.

The Issuer may redeem up to 10% of the aggregate principal amount of (i) the 2031 Notes outstanding as of the applicable redemption date, at any time during each twelve-month period ended July 31, 2026 and July 31, 2027 and (ii) the 2032 Notes outstanding as of the applicable redemption date, at any time during each twelve-month period ended July 31, 2026, July 31, 2027 and July 31, 2028, in each case, at a price equal to 103% of the principal amount of such Notes redeemed, plus accrued and unpaid interest, if any, to, but excluding the applicable redemption date.

The Issuer may from time to time redeem the 2031 Notes (i) on or after July 31, 2027, at a price of 102.938%, (ii) on or after July 31, 2028, at a price of 101.469% and (iii) on or after July 31, 2029, at a price of 100%, in each case, of the principal amount of such 2031 Notes to be redeemed, together with any accrued and unpaid interest, to, but not including, the applicable redemption date. The Issuer may also from time to time redeem the 2032 Notes (i) on or after July 31, 2028, at a price of 103.063%, (ii) on or after July 31, 2029, at a price of 101.531% and (iii) on or after July 31, 2030, at a price of 100%, in each case, of the principal amount of such 2032 Notes to be redeemed, together with any accrued and unpaid interest, to, but not including, the applicable redeemed, together with any accrued and unpaid interest, to, but not including, the applicable redeemed, together with any accrued and unpaid interest, to, but not including, the applicable redeemed, together with any accrued and unpaid interest, to, but not including, the applicable redeemed, together with any accrued and unpaid interest, to, but not including, the applicable redeemed, together with any accrued and unpaid interest, to, but not including, the

In addition, the Issuer may use the net cash proceeds from certain equity offerings by the Issuer to redeem up to 40% of the aggregate principal amount of (i) the 2031 Notes, on or prior to July 31, 2027, at a price of 105.875%, and (ii) the 2032 Notes, on or prior to July 31, 2028, at a price of 106.125%, in each case, of the principal amount of such Notes to be redeemed, together with any accrued and unpaid interest, to, but not including, the applicable redemption date. The Issuer may also redeem the Notes, in whole but not in part, in the event of changes in taxation that would require the Issuer or

any guarantor to pay additional amounts to holders of Notes in respect of withholding taxes that cannot be avoided by using reasonable measures at a price equal to 100% of the principal amount of the Notes, plus accrued and unpaid interest, and any additional amounts, if any, then due or becoming due on the date of redemption. There is no sinking fund for the Notes.

The Indenture contains covenants that limit the ability of the Company and any of its subsidiaries, to, among other things: create liens on certain assets to secure debt and to enter into certain sale-leaseback transactions.

Upon certain events defined to constitute a change of control, the Issuer may be required to make an offer to repurchase any outstanding Notes at a purchase price equal to 101% of their principal amount thereof, plus accrued and unpaid interest, if any, to, but excluding, the date of purchase. The Indenture also provides for customary events of default, which include (subject in certain cases to customary grace and cure periods), among others, nonpayment of principal or interest, breach of other agreements in respect of the Notes, acceleration of certain other indebtedness, failure to pay certain final judgments, failure of certain guarantees to be enforceable, failure to perfect certain collateral securing the Notes and certain events of bankruptcy or insolvency.

Forward-Looking Statements

Cautionary Disclosure Regarding Forward-Looking Statements

This Form 6-K contains statements that are not historical facts and which are "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Rule 175 promulgated thereunder, and Section 21E of the Securities Exchange Act of 1934, as amended, and Rule 3b-6 promulgated thereunder, which statements involve inherent risks and uncertainties and are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

Examples of forward-looking statements include statements about: the proposed Acquisition, including estimated synergies, and the expected timing of completion of the Acquisition; the use of proceeds from the Notes offering and borrowings under the Company's existing credit facilities, and any other financing transactions related to the Acquisition; the Company's future performance or expectations; and the Company's plans, objectives or goals. Words such as "believe," "anticipate," "plan," "expect," "intend," "target," "estimate," "project," "predict," "trend," "forecast," "guideline," "aim," "objective," "will," "should," "could," "likely," "continue," "may," "objective," "outlook" and similar expressions may identify forward-looking statements but are not the exclusive means of identifying such statements. Investors are cautioned not to place undue reliance on forward looking statements.

Forward-looking statements of James Hardie and AZEK, respectively, are based on the current expectations, estimates and assumptions of James Hardie and AZEK, respectively, and, because forward-looking statements address future results, events and conditions, they, by their very nature, involve inherent risks and uncertainties, many of which are unforeseeable and beyond the control of James Hardie or AZEK. Such known and unknown risks, uncertainties and other factors may cause actual results, performance or other achievements to differ materially from the anticipated results, performance or achievements expressed, projected or implied by forward-looking statements. These factors include risks and uncertainties relating to the Acquisition, including, but not limited to, the possibility that required approvals of the Acquisition by AZEK's stockholders and other conditions to closing are not received or satisfied on a timely basis or at all; the possible occurrence of events that may give rise to a right of either or both of James Hardie and AZEK to terminate the merger agreement providing for the Acquisition; possible negative effects of the announcement or the consummation of the Acquisition on the market price of James Hardie's and/or AZEK's shares and/or on their respective businesses, financial conditions, results of operations and financial performance; the impact of the additional indebtedness the Company would incur in connection with the Acquisition; risks relating to the value of the James Hardie shares to be issued in the Acquisition and the contemplated listing arrangements for James Hardie shares and depositary interests following the Acquisition; risks relating to significant transaction costs and/or unknown liabilities; the possibility that the anticipated synergies and other benefits from the Acquisition cannot be realized in full or at all or may take longer to realize than expected; risks associated with contracts containing consent and/or other provisions that may be triggered by the Acquisition; risks associated with Acquisition-related litigation; the possibility that costs or difficulties related to the integration of James Hardie's and AZEK's businesses will be greater than expected; the risk that the Acquisition and its announcement could have an adverse effect on the parties' relationships with its and their employees and other business partners, including suppliers and customers; the potential for the Acquisition to divert the time and attention of management from ongoing business operations; the potential for contractual restrictions under the merger agreement providing for the Acquisition to adversely affect the parties' ability to pursue other business opportunities or strategic transactions; the risk of other Acquisition related disruptions to the businesses, including business plans and operations, of James Hardie and AZEK; and the possibility that, as a result of the Acquisition or otherwise, James Hardie could lose its foreign private issuer status and be required to bear the costs and expenses related to full compliance with rules and regulations that apply to U.S. domestic issuers. There can be no assurance that the Acquisition will in fact be consummated in the manner described or at all.

These factors are not necessarily all of the factors that could cause James Hardie's, AZEK's or the combined company's actual results, performance or achievements to differ materially from those expressed in or implied by any of the forward-looking statements. Other factors, including unknown or unpredictable factors, could also harm James Hardie's, AZEK's or the combined company's results.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

James Hardie Industries plc

Date: 17 June 2025

By: /s/ Aoife Rockett

Aoife Rockett Company Secretary