

- The most comprehensive selection of screws for PVCu fenestration fabrication.
- Specially engineered drill points, thread profile, and head design improve efficiency and ease of use.
- Precision Thread Technology – Fast-starting for optimal engagement and reduced insertion torque.
- Effective for steel reinforced PVCu window and door manufacture.

Technical Specifications

DETAIL	DESCRIPTION
Designed For	Attaching hardware to steel and aluminium reinforced multi-chamber profile
Head Style/Drive Recess	Countersunk – Phillips PH2
Thread Form/Point	Spaced Self-Tapping – Self Drilling Point
Effective Thread Length	Fully Threaded
Material	Case-hardened carbon steel (AISI C1022)
Surface Finish	Electroplated Zinc Clear/Yellow with trivalent passivation to BS EN ISO 4042 (supplementary sealer)
Corrosion Protection	Sacrificial zinc coating
Laboratory Testing	240 hr neutral salt-spray (NSS) to BS EN ISO 9227:2022+A1:2024

Mechanical Data – Average Resistance Characteristics

NOMINAL SIZE	RECOMMENDED TENSILE CAPACITY ($F_{t,swL}$)	RECOMMENDED SHEAR LOAD ($F_{v,swL}$)	TENSILE STRENGTH (R_m)	RECOMMENDED TORSIONAL CAPACITY ($F_{T,swL}$)
CSR 3.9mm	2.58 kN	1.55 kN	324 MPa	1.51 Nm
CSR 4.2mm	2.99 kN	1.80 kN	324 MPa	1.89 Nm
CSR 4.8mm	3.91 kN	2.35 kN	324 MPa	2.81 Nm

NOTE Correct product selection remains dependent on installation environment, moisture exposure, substrate condition and maintenance regime. Data values are based on single-point tests and calculations and are indicative only. Specifiers, end-users, and third parties are responsible for determining and applying appropriate safety factors, not exceeding the stated average resistance characteristics or the limitations of the application.

Installation Guidance

For optimal performance and compliance, thorough user-specific testing to validate the product's suitability for the intended design or application is strongly recommended. Such testing should consider variables such as material compatibility, load requirements, environmental conditions, and installation methods.

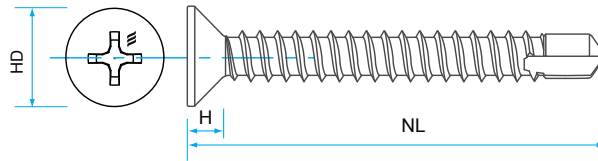
- **Impact-type electric drills/drivers** are not recommended for fixing screws into PVCu windows and doors due to the high-torque, percussive action they generate.
- Percussive action can cause material micro-cracks or stress fractures.
- Excessive torque can strip screw threads or damage the PVCu material, reducing joint integrity.
- Inconsistent torque application results in uneven or insecure screw installation, weakening the fixing.
- High-speed impacts can wear away protective coatings, increasing the risk of corrosion.
- Controlled torque screwdrivers or drills with torque-limiting settings are recommended for optimal performance and durability.

Rapierstar disclaims any liability for misuse, improper installation, or failure to adhere to recommended practices and local building regulations. Additionally, all installations must comply with relevant standards and codes specific to the application, including (but not limited to) those pertaining to safety, structural integrity, and environmental considerations.



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CSR Product Range

PRODUCT CODE	SIZE – SHANK X NL	HD	H	BOX QUANTITY
CSR 3.9 X 16 Y or Z	3.9mm x 16.0mm	7.25mm± 0.25mm	2.85mm	1000
CSR 3.9 X 19 Y or Z	3.9mm x 19.0mm	7.25mm± 0.25mm	2.85mm	1000
CSR 3.9 X 22 Y or Z	3.9mm x 22.0mm	7.25mm± 0.25mm	2.85mm	1000
CSR 3.9 X 25 Y or Z	3.9mm x 25.0mm	7.25mm± 0.25mm	2.85mm	1000
CSR 3.9 X 29 Y or Z	3.9mm x 29.0mm	7.25mm± 0.25mm	2.85mm	1000
CSR 3.9 X 32 Y or Z	3.9mm x 32.0mm	7.25mm± 0.25mm	2.85mm	1000
CSR 3.9 X 38 Y or Z	3.9mm x 38.0mm	7.25mm± 0.25mm	2.85mm	1000
CSR 3.9 X 45 Y or Z	3.9mm x 45.0mm	7.25mm± 0.25mm	2.85mm	500
CSR 4.2 X 45 Z	4.2mm x 45.0mm	7.95mm± 0.15mm	3.15mm	500
CSR 4.2 X 50 Z	4.2mm x 50.0mm	7.95mm± 0.15mm	3.15mm	500
CSR 4.2 X 55 Z	4.2mm x 55.0mm	7.95mm± 0.15mm	3.15mm	500
CSR 4.2 X 65 Z	4.2mm x 65.0mm	7.95mm± 0.15mm	3.15mm	500
CSR 4.8 X 25 Z	4.8mm x 25.0mm	9.25mm± 0.25mm	3.50mm	1000
CSR 4.8 X 38 Y or Z	4.8mm x 38.0mm	9.25mm± 0.25mm	3.50mm	500
CSR 4.8 X 45 Z	4.8mm x 45.0mm	9.25mm± 0.25mm	3.50mm	500
CSR 4.8 X 50 Z	4.8mm x 50.0mm	9.25mm± 0.25mm	3.50mm	500
CSR 4.8 X 60 Z	4.8mm x 60.0mm	9.25mm± 0.25mm	3.50mm	500
CSR 4.8 X 70 Z	4.8mm x 70.0mm	9.25mm± 0.25mm	3.50mm	200

Supporting Documentation

- Declaration of Performance: 001CPR01-03-2013-StarPVCU-Carbon-DoP
- ISO9001-2015-218503 BAB Management Certificate
- ISO14001-2015-241585 BAB Management Certificate

Referenced Standards

- BS EN ISO 4042:2022
- BS EN ISO 9227:2022+A1:2024
- BS EN 14566:2008+A1:2009
- BS 7412:2024



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