

#### **Tender texts**

PREFA roof and façade systems (06/2018)

#### Specifications 01 PREFA roof systems

Title 01.02 PREFA R.16 roof tile

## **GENERAL OBSERVATIONS Author:**

PREFA Aluminiumprodukte GmbH 3182 Marktl/Lilienfeld (Austria)

Last updated on 13/07/2017

Performance of the described services is based on PREFA Aluminium produkte GmbH's installation and mounting instructions, and on the nationally applicable rules, technical regulations and standards.

The specifications are based on the following documents:

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The following specifications were created based on the planning documents made available to us according to the currently applicable rules of sound engineering practice. The tenderer must check the items for feasibility; the quantities must be checked for accuracy with regards to the building, and amended if necessary.

Material waste, loss of material in seam area, small items and fixing material must be taken into account with the items in question. Invoicing is carried out according to on-site measurements.

We strongly recommend visiting the site prior to submitting the tender. The following are not included in this call for tender: work, façade and safety scaffolding, road barriers, official permits, lightning protectors, neighbouring buildings, balconies and projecting roofs. The customer is responsible for ensuring compliance with building physics and structural engineering requirements.

PREFA Aluminiumprodukte GmbH does not guarantee the completeness of the individual items to perform the services described, or the accuracy of the dimensions of the individual items. The planner must verify all statements and information for correctness, and make any necessary adjustments. This preparatory work for the tender is provided as an advisory service for the planner (e.g. architects).



# 01.02.1 Separating layer (with enhanced rain-proofing and sound insulation)

Delivery and installation of a self-sealing polymer bituminous roof underlay; to comply with increased safety requirements and as sound insulation. The manufacturer's guidelines must be observed.

Product offered:		
0.000 m²	UP	TP
(separating layer). The c	of a self-sealing polymer	rating layer must comply with
Product offered:		
0.000 m²	UP	TP
Delivery and installation or roof tiles; including PREF per tile); on solid sheathin guidelines must be observed.	FA fixing material (concea ng (at least 24 mm thick). rved.	oof covering with PREFA R.16 led fastening with 3 ring nails
	eathing with a bitumen lag	
Minimum roof pitch: 17° 17–25°: to be installed or Installation: from right to Size: 700 x 420 mm (cox Material thickness: 0.70 Weight: 2.5 kg/m² Material quality: aluminiu Alloy: EN AW-3005 or EN Front: P.10 coil coating Colour:	left ver); 3.4 pc./m² mm	e with EN 573-3
(Standard according to v Reverse: protective paint Finish: stucco or smooth Class of reaction-to-fire p External fire performance European Commission D Environmental Product D EN 15804: EPD-GDA-20	t Derformance: A1 in accord E: without further testing a Decision 2000/553/EG Declaration in accordance	ccording to EN 13501-5 and to with ISO 14025 and
0.000 m <sup>2</sup>	UP	TP



#### 01.02.4 PREFA edge cleat strip

Delivery and installation of PREFA edge cleat strips; including fixing material and attachment to PREFA roof covering. The PREFA installation guidelines must be observed.

0.000 m	UP	TP
Size: 1,800 x 158 mm  Material thickness: 1.0 mm  Material quality: aluminium		
Siza: 1 800 v 158 mm		

#### 01.02.5 PREFA eaves apron (standard)

Delivery and installation of PREFA ice strips, pre-canted twice in the factory; including fixing material, with a tapered edge aligned with the gutter inclination.

Size: 230 × 2,000 mm Material thickness: 0.70 mm Material quality: aluminium Alloy: EN AW-5010

Finish: coil coating

Colour: same as the main item

0.000 m UP \_\_\_\_\_ TP \_\_\_\_

#### 01.02.6 Eaves apron made of Prefalz flashing strip

Delivery and installation of ice strips made of Prefalz flashing strip; including the necessary fixing material; with a tapered edge aligned with the gutter inclination.

Cutting dimension: ... mm Downstand: ... pc.

Material thickness: 0.70 mm Material quality: EN AW-5010 Colour: same as the main item

0.000 m UP \_\_\_\_\_ TP \_\_\_\_

#### 01.02.7 PREFA bird screen for ventilation

Delivery and installation of PREFA bird screen with round perforations for aeration and ventilation; to prevent insects and birds from getting into the ventilated channel. Including fixing material.

Cutting dimension: 125 mm Downstand: as required Length: 2,000 mm

Material thickness: 0.70 mm

Material: aluminium

Round perforations: Ø 5 mm

**0.000 m** UP TP



## 01.02.8 Roof break (mansard roof)

Formation of a roof break on a mansard roof including aluminium edge part and edge cleat strips, and attachment to the PREFA roof covering.

Roof transition from° to°			
0.000 m	UP	TP	
01.02.9 Roof break  Formation of a roof break with Prefalz flashing strip including clips and attachment to the PREFA roof covering.			
Roof transition from° to°			
0.000 m	UP	TP	
O1.02.10 PREFA safety valley ( Delivery and installation of PREFA fixing material and attachment of a covering. The individual parts (matexpansion in mind.  Cutting dimension: 708 mm Downstand: 8 pc.  Material thickness: 0.70 mm Material quality: same as the main Colour: same as the main item	a safety valleys with addit all connections (both side x 3,000 mm) must be con	tional joint; including es) to the PREFA roof	
0.000 m	UP	TP	
O1.02.11 Valley made of Prefal: Delivery and installation of valley fixing material and attachment of a covering. The individual parts (maxexpansion in mind.  Cutting dimension: mm Downstand: pc. Material thickness: 0.70 mm Material quality: same as the main Colour: same as the main item	lashing made of Prefalz tall connections (both side x 3,000 mm) must be con	s) to the PREFA roof	

UP \_\_\_\_\_ TP \_\_\_\_

0.000 m



#### 01.02.12 Valley with recess, made of Prefalz flashing strip

Delivery and installation of a recessed valley formation as flashing made of Prefalz flashing strip; on existing, lowered substructure. Including fixing material and attachment of all connections (both sides) to PREFA roof covering and mounting one layer of roof underlay to provide additional backflow protection. The individual parts (max 3,000 mm) must be connected bearing expansion in mind.

Cutting dimension: ... mm Downstand: up to 5 pc. Material thickness: 0.70 mm

Material quality: same as the main item

Colour: same as the main item

<b>0.000 m</b> UP	TP	
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#### 01.02.13 Valley construction (curved valley)

Delivery and installation of a round or folded valley construction on round dormers made of Prefalz flashing strip. The individual parts (max 3,000 mm) must be connected bearing expansion in mind. Including clips and attachment of all connections (both sides) to the PREFA roof covering.

Dormer width: ... mm

Rise: ... mm Main roof pitch: ...°

Material thickness: 0.70 mm

Material quality: same as the main item

Colour: same as the main item

<b>0.000 m</b>	
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#### 01.02.14 Wall connection valley with Prefalz flashing strip

Delivery and installation of flashing made of Prefalz flashing strip; including fixing material and attachment of all connections to the PREFA roof covering. The individual parts (max 3,000 mm) must be connected bearing expansion in mind.

Cutting dimension: ... mm Downstand: up to 4 pc. Material thickness: 0.70 mm

Material quality: same as the main item

Colour: same as the main item

0.000 m	UP	TP	

#### 01.02.15 Soaker flashing made of Prefalz flashing strip

Delivery and installation of soaker flashing made of Prefalz flashing strip, with standing seam and check edge on both sides; including fixing material and attachment of all connections to PREFA roof covering.

Dimensions: ... x ... mm

Material thickness: same as the main item Material quality: same as the main item

Colour: same as the main item



0.000 pc.	UP	TP
<b>01.02.16 Apron made of Prefa</b> Delivery and installation of aprons connections to roof fittings; includ PREFA roof covering. The individ bearing expansion in mind.	s made of Prefalz flashir ling fixing material and a	attachment to the
Cutting dimension: mm Downstand: pc. Material thickness: same as the n Material quality: same as the main Colour: same as the main item		
0.000 m	UP	TP
<b>01.02.17 PREFA ridge vent (ri</b> d Delivery and installation of PREFA		
01.02.17 PREFA ridge vent (ridge) Delivery and installation of PREFA to aerate the ventilated channels; 4.5/60 mm, with sealing washer) The PREFA installation guidelines Piece lengths: 3,000/1,200 mm Air intake section: 250 cm²/m Material thickness: 1.00 mm Material quality: same as the main Colour: same as the main item	A ridge vent; self-suppo including fixing materia and attachment to the Ps must be observed.	rting; half-round shape; I (stainless steel screws
Delivery and installation of PREF, to aerate the ventilated channels; 4.5/60 mm, with sealing washer) and the PREFA installation guidelines. Piece lengths: 3,000/1,200 mm Air intake section: 250 cm²/m Material thickness: 1.00 mm Material quality: same as the main	A ridge vent; self-suppo including fixing materia and attachment to the Ps must be observed.	rting; half-round shape; I (stainless steel screws REFA roof covering.

UP \_\_\_\_\_ TP \_\_\_\_

0.000 pc.



#### 01.02.19 PREFA ridge and hip construction, non-ventilated

Delivery and installation of PREFA ridge/hip cap (half-round shape, with embossed ridge) on existing wooden batten; including fixing material (stainless steel screws 4.5/45 mm, with sealing washer) and double-sided attachment of PREFA roof covering to the ridge or hip batten. The PREFA installation guidelines must be observed.

Length: 500 mm Material thickness: 1.00 mm Material quality: same as the main Colour: same as the main item	item	
0.000 m	UP	TP
<b>01.02.20 PREFA hip and ridge</b> Delivery and installation or PREFA including fixing material and attach guidelines must be observed.	ridge/hip cap start/end p	piece, quarter sphere;
Material thickness: 1.50 mm Material quality: same as the main Colour: same as the main item	item	
0.000 pc.	UP	TP
O1.02.21 Ridge and hip construction of ridge/hi existing wooden batten; including from connections (both sides) to the PR 3,000 mm) must be connected bear Colour: same as the main item Material quality: same as the main Material thickness: 0.70 mm Cutting dimension: mm Downstand: pc.	p plates made of Prefalz ixing material and attach EFA roof covering. The intring expansion in mind.	edge flashing on ment of all ndividual parts (max
0.000 m	UP	TP
O1.02.22 PREFA frog-mouth ve Delivery and installation of PREFA the ventilated cavity; with deep-dra with riveted or bonded joint includin the roof covering and sheathing.  Material thickness: 1.20 mm Material quality: same as the main Air intake section: approx. 30 cm² Colour: same as the main item	frog-mouth vent covers a wind top section and perform out of the necessity	oration; installation
0.000 pc.	UP	TP

#### 01.02.23 Mono-pitched-roof end made of Prefalz flashing strip



Delivery and installation of mono-pitched-roof end made of Prefalz flashing strip; including fixing material, cleat strips and perforated plate, and attachment to the PREFA roof covering. The individual parts (max 3,000 mm) must be connected bearing expansion in mind.

Cover profile: Cutting dimension: mm Downstand: pc. Material thickness: same as the n Colour: same as the main item	nain item	
0.000 m	UP	TP
<b>01.02.24 PREFA verge flashin</b> Delivery and installation of PREFA fixing material and attachment to must be connected allowing for exmust be observed.	A verge flashing with cle the PREFA roof covering	at strips; including g. The individual pieces
Verge flashing: Cutting dimensions: 2,000 × 95 m Downstand: 4 pc. Material thickness: 0.70 mm	nm	
Cleat strip: Cutting dimensions: 2,000 × 70 m Downstand: 2 pc. Material thickness: 1.0 mm	nm	
Material quality: same as the main Colour: same as the main item	n item	
0.000 m	UP	TP
<b>01.02.25 Verge flashing made</b> Delivery and installation of verge fixing material and attachment to (max 3,000 mm) must be connected.	flashing made of Prefalz the PREFA roof covering	flashing strip; including g. The individual parts
Verge flashing: Cutting dimension: mm Downstand: pc. Material thickness: 0.70 mm		
Cleat strip: Cutting dimension: mm Downstand: pc. Material thickness: min. 1.0 mm		
Material quality: same as the main Colour: same as the main item	n item	

0.000 m

TP \_\_\_\_\_



## 01.02.26 PREFA flashing plate for R.16 roof tile

Delivery and installation of PREFA flashing plates for pipe openings including cutting out of openings on the sheathing and incorporation into the PREFA roof covering. The PREFA installation guidelines must be observed.

Pipe openings: from 80 to 12 Roof pitch: 12°–52°		
Material thickness: same as Material quality: same as the Colour: same as the main it	e main item	
0.000 pc.	UP	TP
01.02.27 PREFA universal Delivery and installation of 2 edging); including incorporal installation guidelines must	2-part PREFA universition in the PREFA ro	sal flashing strips (e.g. for aeria
Pipe openings: from 40 to 12 Roof pitch: 12°–52° Material thickness: 0.70 mm Material quality: same as the Colour: same as the main it	n e main item	
0.000 pc.	UP	TP
O1.02.28 PREFA vent pip Delivery and installation of F the flashing plate and sealin guidelines must be observed  Total height: 380 mm Diameter: 100 mm, 120 mm Material thickness: 1.00 mm Material quality: same as the Colour: same as the main it	PREFA vent pipe with ng of the pipe rosette. d.  n n e main item em	
0.000 pc.	UP	TP
<b>01.02.29 PREFA flexible</b> Delivery and installation of Felastic EPDM for incorporate PREFA installation guideline Diameter: 100–130 mm	PREFA flexible pipe or ing round roof opening	ngs into the roof underlay. The
0.000 pc.	UP	TP



#### 01.02.30 Chimney and ventilation shaft flashing strip

Delivery and installation of chimney and ventilation shaft flashing strips made of Prefalz flashing strip; consisting of side curbs, apron and back curb (flashing upstand: approx. 200 mm); including incorporation into the longitudinal and transverse seam. In the case of penetrations with a width of > 1.0 m, a tapered wedge must be created in the back curb area.

Size: x mm  Material thickness: 0.70 mm  Material quality: same as the main  Colour: same as the main item	item	
0.000 pc.	UP	TP
01.02.31 Chimney and ventilation. Delivery and installation of chimney Prefalz flashing strip; consisting of upstand: approx. 200 mm); includir transverse seam. In the case of pewedge must be created in the back	y and ventilation shaft fla side curbs, apron and ba ng incorporation into the netrations with a width o	ack curb (flashing longitudinal and
Material thickness: 0.70 mm Material quality: same as the main Colour: same as the main item	item	
0.000 m	UP	TP
01.02.32 Chimney and ventilation Delivery and installation of chimney Prefalz flashing strip. Preparation of local measurements up to the bottom Size: × × mm  Material thickness: 0.70 mm  Material quality: same as the main Colour: same as the main item	y and ventilation shaft cla of cladding with a folded on om edge of the branch.	
0.000 pc.	UP	TP
01.02.33 Chimney and ventilation of chimney Prefalz flashing strip. Preparation of local measurements up to the bottom Material thickness: 0.70 mm Material quality: same as the main Colour: same as the main item	y and ventilation shaft cla of cladding with a folded on om edge of the branch.	

UP \_\_\_\_\_ TP \_\_\_\_

0.000 m<sup>2</sup>



## 01.02.34 Chimney cap cover

Delivery and installation of chimney cap covers made of Prefalz flashing strip including cutting out, flaring and sealing of openings.

Size: x mm Material thickness: 0.70 mm Material quality: same as the Colour: same as the main ite	main item	
0.000 pc.	UP	TP
<b>01.02.35 PREFA chimney</b> Delivery and installation of P and stainless steel screws.		overs including chimney cap legs
Material thickness: 2 mm Material quality: aluminium a Colour: same as the main ite		ted
Size: × mm 700 × 700 mm, 800 × 800 m 1,500 × 800 mm	m, 1,000 × 700 m	nm, 1,100 × 800 mm,
0.000 pc.	UP	TP
Prefalz flashing strip; includir sealing with a permanently e	laster sealing string fixing material elastic sealing coron. The individual n in mind.	ps (counter flashings) made of (dowel fastening if required), mpound and installation of spacer parts (max 3,000 mm) must be
0.000 m	UP	TP
including fixing material (dow	atent sealing strip vel fastening if rec compound and in	os made of Prefalz flashing strip quired); sealing with suitable stallation of spacer brackets for

UP \_\_\_\_\_ TP \_\_\_\_

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0.000 m



#### 01.02.38 PREFA roof hatch

Delivery and installation of PREFA roof hatches for attics and non-heated rooms with flashing, wooden frame, opening restrictor with cotter pin and 6 mm twinwall clear sheet with frame seal. Including attachment to the PREFA roof covering, cutting out of access openings in the sheathing and attaching the wooden frame. The PREFA installation guidelines must be observed.

Size: 600 x 600 mm (inside dimens Colour: same as the main item	sions)	
0.000 рс.	UP	TP
<b>01.02.39 PREFA flashing for Ve</b> Delivery and installation of PREFA including attachment to PREFA roomust be observed.	flashing strips for Velux	
Window: with thermal insulation fra Material quality: same as the main Colour: same as the main item		
Size:  C02 55 × 78, C04 55 × 98, C06 55  66 × 140, M04 78 × 98, M06 78 × 78 × 180, P04 94 × 98, P06 94 × 1  114 × 118, S08 114 × 140, S10 114  134 × 160	118, M08 78 × 140, M10 18, P08 94 × 140, P.10 9	78 × 160, M12 94 × 160, S06
0.000 pc.	UP	TP
<b>01.02.40 PREFA flashing for Ro</b> Delivery and installation of PREFA including attachment to PREFA roomust be observed.	flashing strips for Roto re	
Window: with thermal insulation fra Material quality: same as the main Colour: same as the main item		
Size: 54 × 78, 54 × 98, 54 × 118, 65 × 98 74 × 118, 74 × 140, 74 × 160, 94 × 114 × 78, 114 × 98, 114 × 118, 114 134 × 140	78, 94 × 98, 94 × 118, 9	$4 \times 140, 94 \times 160,$
0.000 pc.	UP	TP



## 01.02.41 PREFA flashing for Roto Q series roof windows

Delivery and installation of PREFA flashings for Roto Q series roof windows; including attachment to the PREFA roof covering.

Window: with/without thermal i Material quality: same as the n Colour: same as the main item	nain item	
Size: Q55 × 78, Q78 × 98, Q78 × 11	8, Q94 × 140, Q	114 × 118, Q134 × 160
0.000 pc.	UP	TP
<b>01.02.42 Façade cladding</b> Delivery and installation of faça including attachment to the PR junctions; with PREFA R.16 ro seam).  Design:	EFA roof covering	
Material thickness: same as th Material quality: same as the n Colour: same as the main item	nain item	
0.000 m <sup>2</sup>	UP	TP
including cleat strips on both simust be prepared in lengths of Cutting dimension: mm Downstand: pc. Material thickness: 0.70 mm Material quality: same as the n Colour: same as the main item	f parapet flashing ides and fixing m i up to 3,000 mm	g made of Prefalz flashing strip; aterial. The individual elements max. according to the cut.
Connection types: standing sea sheathing.  Design:	am, hook seam,	coulisseau or corrugated metal
0.000 m	UP	TP
<b>01.02.44</b> Surcharge for round Surcharge added to the cost of segments.		
0.000 m	UP	TP



## 01.02.45 Corner edge cover made of Prefalz flashing strip

Delivery and installation of corner edge covers made of Prefalz flashing strip; including cleat strips and fixing material. The individual elements must be prepared in lengths of up to 3,000 mm max. according to the cut.

Cutting dimension: mm Downstand: pc. Material thickness: 0.70 mm Material quality: same as the main Colour: same as the main item	item	
0.000 m	UP	TP
<b>01.02.46 Cornice flashing made</b> Delivery and installation of cornice including cleat strips and fixing ma prepared in lengths of up to 3,000	flashing made of Prefalz terial. The individual eler	z flashing strip; ments must be
Cutting dimension: mm Downstand: pc. Material thickness: 0.70 mm Material quality: same as the main Colour: same as the main item	item	
0.000 m	UP	TP
O1.02.47 PREFA snow guard for Delivery and installation of PREFA mounting direction is from the eaver roof tile must be installed along the of snow guards must be calculated installation guidelines must be obsequently. Same as the main Colour: same as the main item	snow guard for PREFA es towards the ridge, 2 si e first two rows on the ead according to static calculations.	now guards per R.16 ves side. The number
0.000 pc.	UP	TP
<b>01.02.48</b> PREFA pipe-style snow guard system Delivery and installation of a PREFA pipe-style snow guard system; including fixing material and installation of a base plate if required. The pipe-style snow guard system must be assembled according to static calculations. The PREFA installation guidelines must be observed.  Pipe-style snow guard system: 205 × 50 × 300 mm (H × W × D) with fixing slide, two mounts with surface sealant (outer diameter: 87 mm), fixing material and		
protective caps.  Holes: removable pipe with connect PREFA end pieces must be mount	ction sleeves, 3 pc., 3,00	_
Material: aluminium, powder-coate Colour: same as the main item	d	
0.000 m	UP	TP



## 01.02.49 Surcharge for PREFA ice-retention brackets (pipe-style snow guard system) PREFA ice-retention brackets for the pipe-style snow guard system, approx. 4 pc./m. Material: aluminium, powder-coated Colour: same as the main item 0.000 m UP \_\_\_\_\_ TP \_\_\_\_ 01.02.50 PREFA pipe-style snow guard system Delivery and installation of a PREFA pipe-style snow guard system; including fixing material and sealants, and installation of a base plate if required. The snow guard system must be assembled according to static calculations. The PREFA installation guidelines must be observed. Pipe-style snow guard bracket: 30/7 mm, hardened aluminium Holes: pipes (15 mm Ø), 3 pc., 3,000 mm long Connection sleeves: 15 mm (inside diameter) PREFA end pieces must be mounted at the ends. Material: aluminium, powder-coated Colour: same as the main item UP \_\_\_\_\_ TP \_\_\_\_ 0.000 m 01.02.51 PREFA mountain snow-guard bracket Delivery and installation of a PREFA mountain snow-guard bracket including fixing material and installation of a base plate if required. The mountain snowquard brackets must be assembled according to static calculations. The PREFA installation guidelines must be observed. Mountain snow-guard bracket: (300 x 246 mm), including two mounts with surface sealant (outer diameter: 87 mm), fixing material and protective caps. Holes: logs (approx. 140 mm ∅) Material: aluminium, powder-coated Colour: same as the main item

0.000 m

TP \_\_\_\_\_



#### 01.02.52 PREFA roof anchor hook according to (EN 517 B, on mounts)

Delivery and installation of PREFA roof anchor hooks on mounts; tested according to EN 517 B, authorized for two people. Comprising two mounts with surface sealant (outer diameter: 87 mm), fixing material and protective caps in light grey. Installation of a base plate if required. The PREFA installation guidelines must be observed.

The roof anchor hooks must be assembled and laid out in accordance with the accident prevention regulations of the respective country and according to the building's specified requirements.

ouilding's specified requiremen	•	live country and according to the
Material: stainless steel Colour: stainless steel / light g	rey	
0.000 pc.	UP	TP
ested according to EN 517 B,	EFA roof anchor authorized for authorized for authorized for author auth	or hooks as a single anchor point; one person. Includes protective n of a base plate if required. The
	s of the respec	nd laid out in accordance with the tive country and according to the
Material: galvanised steel, pow Colour: same as the main item		
).000 pc.	UP	TP
solar panels on PREFA roofs.	EFA solar brace Includes protect sets and bearing s. Installation of	g distances must be calculated f a base plate if required. The
Material thickness: 5 mm Size: 63 × 260 mm Material: aluminium Colour: same as the main item	n, powder-coate	ed
).000 pc.	UP	TP

#### 01.02.55 PREFA Sunny solar bracket

Delivery and installation of PREFA Sunny solar bracket as a point of attachment for solar panels on PREFA roofs. Includes PREFA special adhesive for incorporating the cover. The number of brackets and bearing distances must be calculated according to static calculations. Installation of a base plate if required. The PREFA installation guidelines must be observed.

Fixing screw: STS M12 350 mm, uncoated

Cover: zinc grey powder-coated, aluminium 1.20 mm



0.000 pc.	UP	TP
01.02.56 PREFA walkway Delivery and installation of a P material and sealants. Installationstallation guidelines must be	tion of a base plat	
protective cap, adjustable for r	oof pitches of 12°	ach support max. 900 mm) with 2–55°. ing fixing material and walkway
Material: galvanised steel, pov Colour: same as the main item		
0.000 m	UP	TP
01.02.57 PREFA walkway so Delivery and installation of PR protective cap, fixing material required. The PREFA installation walkway support: 2 pc. 250 m with protective cap, adjustable Walkway: 250 x 420/600/800 Material: galvanised steel, pow Colour: same as the main item	EFA walkway sup and sealants. Inst ion guidelines mu m (distance betw for roof pitches o mm; including fixil vder-coated	oports (walkways); including callation of a base plate if st be observed.  een each support max. 900 mm) of 12°-55°.
0.000 pc.		TP
observed.  Material: aluminium, powder-c	EFA safety treads r: 87 mm); fixing 2°–60°. The PRE oated	
Colour: same as the main item 0.000 pc.		TP
01.02.59 Skilled worker how Skilled worker hourly rate 0.000 h	urly rate	TP
01.02.60 Assistant hourly r Assistant hourly rate		···
0.000 h	UP	TP

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