

# SG10:19

## Use of Brickguards

### 1. INTRODUCTION

*The Work at Height Regulations 2005 (WAHR)* state that 'every employer shall, where necessary to prevent injury to any person, take suitable and sufficient steps to prevent, so far as is reasonably practicable, the fall of any material or object', and this document provides guidance on how suitable brickguards can be used to comply with this regulation.

*Note:* The purpose of a brickguard is to prevent materials from falling from the working platforms of scaffolds where toeboards do not offer sufficient protection.

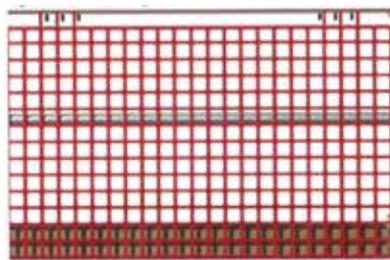
The client and the user are responsible for determining the level of protection required (via a suitable risk assessment).

The scaffolding contractor should advise the client (or user) of best practice, preferably when first discussing the contract.

#### Typical Brickguards:



**Figure 1**  
Galvanised steel brickguard



**Figure 2**  
Polypropylene brickguard



**Figure 3**  
Proprietary brickguard with  
intergrated toeboard

### 2. TEST AND DESIGN

Brickguards should be robust enough to prevent material falling from the scaffold, and the informed site-specific risk assessment will identify these loads. Section 2.1.8.6 of the TG20:13 Design Guide specifies load requirement.

The TG20 compliance sheet for unclad scaffolding may be used in conjunction with brickguards, as stated on the sheets. The additional wind loads attracted by brickguards, especially polypropylene varieties, can become significant when used on scaffolds of greater heights, in sites with high wind exposure. Specific TG20 compliance sheets are provided for these circumstances in the TG20 eGuide.

The selected brickguard should be capable of withstanding the likely loads that may be imposed on it. In most cases, the decision should not be difficult to make and will not need complex calculations.

Section 2.1.8.6 of the TG20:13 Design Guide gives technical guidance on the design and loading of brickguards. BSEN 12811-1 states they should be designed to resist a horizontal point load of 0.3kN, in the most unfavourable position. This load may be distributed over a max 300mm x 300mm area. Clarification should be sought from the manufacturers or suppliers to confirm that they comply with these requirements.

There are some counterfeit plastic brickguards on the market. Choose a reputable supplier to provide your brickguards who can provide you with a data specification sheet or certificate of conformity.

### 3. RISK ASSESSMENT

The risk assessment carried out by the client or user should determine the level of protection required, as well as the type, method of fixing, load bearing requirements and positioning of brickguards.

*Note:* The NASC recommends that the scaffolding contractor should advise the client or user (and interested parties) regarding best practice, including the inclusion or omission of brickguards, as early in the contract as possible.

The level of protection will be greatly influenced by the number of people at risk, the nature of the work, the proximity of passers-by, and the results of the risk assessment and the type of material that could fall from the scaffold. For instance, solid mesh may be appropriate for concrete blocks but netting could be used instead to deal with less substantial items such as stone chips. Ultimately it is the client or users decision.

Briefly:

- Brickguards (or an equivalent alternative) are needed where there are risks of material falling, which can lead to injury;
- Brickguards are required where the client has a clear policy or has a specific request to have these installed and these should be fitted where reasonably practicable;
- Brickguards are recommended for the sides of loading bays etc, where materials are placed via crane or fork lift truck.

In public areas and on scaffolds erected for long durations solid protection (boards/plywood) should be considered.

*Note:* Some proprietary panels can also be used to meet additional edge protection requirements provided they comply with WAHR Schedule 2 (which details the requirements for guardrails, toeboards, barriers and similar collective means of protection). A positively secured and robust mesh guard can perform this function in some circumstances.

**However, the NASC recommends that intermediate guardrails are always fitted when brickguards are being used.**

*Note:* The scaffolding contractor should also ensure that they carry out a suitable and sufficient risk assessment to decide on appropriate measures to prevent material falling during the erection, alteration and dismantling of the scaffold (which may include installing suitable brickguards or installing more than one toeboard high on gantries where scaffolding materials are stacked during the erection and dismantling phases). It is important to ensure that the area below the scaffold is kept clear during erection.

#### 4. SUITABILITY, STACKING AND STORAGE

With brickguards, there is a range of different types of mesh size available to suit all situations. Specific advice cannot be given as to the type of brickguard required (as this should be subject to a specific on-site risk assessment), but the following gives good general advice.

There are generally three types of brickguard on the market (made from various materials, including metal and plastic):

The client or user will determine the type of brickguard best suited for the task (and whether that brickguard is made of metal or polypropylene etc), but the following details the pros and cons of the three main types:

Type of Brickguard	Pros	Cons	Environmental
<b>Fixed Handles</b> Designed to hook over the top guardrail	<b>Gained time</b> – Speedy fixing during installation and removal	<b>Poor storage – Lost time</b> stacking Brickguards in a suitable way to avoid damage to the handles	Metal is 100% recyclable when scrapped.  All polypropylene plastics are 100% recyclable
<b>Detachable Handles</b>	<b>Easy Storage</b> – Can be safely stacked flat on top of each other without causing damage to the brickguard	<b>Lost time</b> – Fixing and unfixing the handles	Look for the sign  
<b>No Handles</b> Designed to be secured to the top guardrail with suitable tying methods	<b>Easy Storage</b> – Can be safely stacked flat on top of each other without causing damage to the brickguard	<b>Lost time</b> – Securing to the top guardrail and extra care must be taken removing suitable tying methods	Cable ties – Non recyclable, unless stated.

Where brickguards are stored, care should be taken to ensure that they are stacked neatly and safely and are not likely to cause slips, trips or falls, or be subject to wind displacement.

#### 5. INSTALLATION, INSPECTION AND REMOVAL

To ensure that brickguards prevent material falling they need to have suitable and sufficient structural strength and be positioned, used and installed in a manner that achieves that goal.

Brickguards must be fixed as per the manufacturer’s guidelines, inspected as part of the weekly scaffold inspection regime (e.g. before use and every 7 days), and must be capable of being removed in a safe manner.

*Note:* Brickguards are often moved without authorisation by other trades, and damaged. Where this occurs, these should be replaced and recorded on the 7-day inspection.

Where brickguards are to be used, they may need to be secured or fixed in position, e.g. if subjected to foreseeable loads including inclement weather which may dislodge them).

The manufacturer will specify whether the brickguard requires lapping.

## 6. ENVIRONMENTAL

All metal brickguards are 100% recyclable and plastic brickguards can be as much as 100% recyclable if polypropylene. Look for the sign or check with the manufacturers.

If zip ties are used to secure the brickguards, be aware that they are not recyclable. Unless it is stated that they are reusable or biodegradable they should be disposed of as general waste.

## 7. REFERENCES AND FURTHER GUIDANCE

The Work at Height Regulations 2005 (WAHR)

NASC Technical and Safety Guidance including:

TG20 Operational Guide – A comprehensive guide to good practice for tube and fitting scaffolding

TG20 Design Guide – Technical guidance on the use of BS EN 12811-1

BS EN12811-1 ; 2003 Temporary Works Equipment

For advice about recycling, please contact the following:

BPF British Plastics Federation – Recycle markings:

[https://www.bpf.co.uk/Sustainability/Plastics\\_Recycling\\_Markings.aspx](https://www.bpf.co.uk/Sustainability/Plastics_Recycling_Markings.aspx)

BPF British Plastics Federation – Polypropylene:

<https://www.bpf.co.uk/plastipedia/polymers/PP.aspx>

*Whilst every effort has been made to provide reliable and accurate information, we would welcome any corrections to information provided by the Writer which may not be entirely accurate, therefore and for this reason, the NASC or indeed the Writer, cannot accept responsibility for any misinformation posted.*



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