

TOUGHENED AND LAMINATED GLASS HANDLING ACTIVITY RAMS — ADAPT TO SITE BEFORE USE

How each glass type fails · edge damage · spontaneous breakage · stillages and A-frames · identifying safety glass KD-RA-GL-001 Rev A0

Statutory basis: Manual Handling Operations Regulations 1992 reg 4 — the law sets no weight limit, so the weight of every unit is established from the schedule or delivery note before it is handled and the handling assessed, not judged on site; LOLER 1998 reg 8 — offloading stillages and A-frames by crane, forklift or vehicle-mounted crane is a lifting operation, planned and supervised, and reg 9 — vacuum lifters thoroughly examined; CDM 2015 regs 13 and 15. Safety glazing in critical locations is checked against Approved Document K (K4), which is statutory guidance in England. This document is the recorded safe system of work required by HSWA 1974 s.2(2)(a) and MHSWR 1999 regs 3 and 5.

1 DOCUMENT AND PROJECT IDENTIFICATION

RAMS REFERENCE	PROJECT / SITE REF	SITE NAME AND ADDRESS	DATE PREPARED	NEXT REVIEW DATE
CLIENT / PRINCIPAL CONTRACTOR	PLANNED START	DURATION	OPERATIVES	SUPERVISING THE WORK

2 SCOPE OF WORKS

Receiving, storing, moving and fitting toughened (including heat-soaked), laminated and toughened-laminated glass on site, with the handling set by how each type fails: toughened glass shattering from edge damage or inclusions, laminated glass that loses its stiffness when broken, units that cannot be altered on site, and checking that the right glass goes into each location.

This document does not cover: overhead and structural glazing (KD-RAMS-GL-002), craned and hoisted installation into openings (KD-RAMS-GL-006), broken glass removal and glass waste (KD-RA-GL-005), and emergency breakage call-outs (KD-RAMS-GL-005).

SITE-SPECIFIC SCOPE, LOCATIONS AND LIMITATIONS

3 RISK ASSESSMENT — SCORE EACH RISK FOR THIS SITE, THEN ADD WHAT IS MISSING

The hazards and controls below are the starting point for this activity, written by a working main contractor. They are not complete for your site until a competent person has scored each risk, added the site-specific hazards, and struck out anything that does not apply. Rate risks High / Medium / Low before and after controls.

1. Toughened glass shattering without warning when its edge or surface is damaged

At risk: Glaziers, those nearby

Controls: Edge protection left on until the pane is set. A toughened pane is never set down on its bare edge or corner onto concrete, steel or grit — rubber setting blocks or timber bearers every time. Every unit checked for chips, shells and deep scratches at the edge on delivery and again before it is lifted; a damaged toughened unit is quarantined and returned, never fitted.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

2. Attempting to cut, drill, notch or edge-work toughened glass on site

At risk: Glaziers

Controls: Toughened glass cannot be altered after toughening — any attempt shatters it. Wrong-size or wrongly drilled units go back to the supplier; no grinding, nibbling or edge-working on site.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

3. Spontaneous breakage of toughened glass from nickel sulphide inclusions

At risk: People below and beside the glass

Controls: This can happen in storage, during fitting or long after. Heat-soaking reduces the risk but does not remove it. Heat-soaked glass supplied where the specification calls for it and confirmed on the delivery documents; nobody stands under raised toughened glass; a pane that breaks with no apparent cause is reported and the area cleared, not simply replaced.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

4. Falling fragments when a toughened pane shatters at height

At risk: People below

Controls: The pane falls as a mass of small fragments that still cut and can fall in clumps. Exclusion zone below high-level toughened glass during fitting and until it is fully fixed and checked; eye protection for anyone who must be in the zone.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

5. Broken laminated glass found on delivery or in store

At risk: Glaziers

Controls: A broken laminated unit loses its stiffness and can fold out of a stillage. It is left supported where it is and dealt with under KD-RA-GL-005 (Planned Removal of Broken Glass and Glass Waste) — never lifted or carried as if it were intact.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

6. Unit weight underestimated, and large panes caught by the wind outdoors

At risk: Glaziers

Controls: Weights taken from the schedule or delivery note before any unit is moved, and the handling method and number of people set by the assessment for that weight and size. Suction lifters rated for the unit, thoroughly examined under LOLER 1998 reg 9 with the report in date, and the vacuum checked on every pick. Large panes are not carried by hand across open ground in wind the supervisor judges unsafe — a trolley or lifting aid is used instead.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

7. Stillages and A-frames toppling, units falling when straps are released, or a person crushed between leaning units*At risk: Glaziers, delivery drivers*

Controls: A-frames and stillages on firm, level ground, loaded and unloaded evenly from alternate sides. Straps released one side at a time with the units supported, and nobody on the side the units would fall to. Nobody stands between a stack and a frame or wall; units never leaned against the structure unsecured.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

8. Offloading glass stillages from the delivery vehicle*At risk: Glaziers, driver, people nearby*

Controls: Offloaded by crane, forklift or vehicle-mounted crane under a lift plan with a competent supervisor; exclusion zone round the vehicle; nobody under the load or on the vehicle bed while it is lifted; the stillage's lifting points and rating checked first.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

9. The wrong glass fitted — annealed or unmarked glass where safety glass is needed*At risk: Future building users*

Controls: Before fixing, the permanent mark on each pane is checked against the glazing schedule for every critical location — doors, side panels and low-level glazing. An unmarked or wrongly marked pane is held back until the supplier confirms what it is.

INITIAL (H/M/L)	RESIDUAL (H/M/L)	SITE-SPECIFIC ADDITIONAL CONTROLS, OR N/A	ACTION OWNER	BY WHEN

Site-specific hazards not listed above — every site has at least one:

HAZARD	WHO IS AT RISK	CONTROLS	INITIAL H/...	RESIDUAL...	ACTION OWNER	BY WHEN

4 METHOD — SEQUENCE OF WORK

- Before delivery, get the glazing schedule with glass type, heat-soak requirement, size and weight for each unit, and plan the offload and storage positions.
- Offload under the lift plan with an exclusion zone. Nobody under the load or on the vehicle bed.
- Inspect each unit on arrival — edges, corners, surface, marks and delivery documents. Quarantine damaged or wrongly specified units.
- Store on A-frames or stillages on firm, level ground, strapped, loaded evenly, with edge protection on.
- Release straps one side at a time with the units supported. Move each unit by the method set for its weight — trolley, suction lifters or the stated number of people — with the route walked and cleared first.
- Before lifting to the opening, check the edges again, and check the mark against the schedule for critical locations.
- Set onto setting blocks, never on a bare edge or corner. Keep the exclusion zone below high-level glass until it is fixed.
- Do not cut, drill or edge-work toughened glass. Return wrong units.
- STOP and clear the area if any pane cracks or shatters, and deal with the broken glass under KD-RA-GL-005.
- Record quarantined units and any unexplained breakage, and report them to the supplier and the principal contractor.

SITE-SPECIFIC AMENDMENTS TO THE SEQUENCE**5 PLANT, EQUIPMENT AND MATERIALS**

- | | |
|--|--|
| A-frames and stillages with straps | Crane, forklift or vehicle-mounted crane under a lift plan |
| Glass trolleys and suction lifters with current thorough examination reports | Barriers for exclusion zones |
| Edge protectors and setting blocks | |

INSPECTION / THOROUGH EXAMINATION REFS**COSHH ASSESSMENT REFS****6 PPE — THE LAST LINE OF CONTROL, NOT THE FIRST**

- | | | |
|-----------------|---------------------|--|
| Head protection | Gloves — task-rated | Cut-resistant gauntlets and forearm protection |
| Safety footwear | Eye protection | |
| High visibility | Hearing protection | |

RPE TYPE, FACE-FIT STATUS, AND ANY OTHER PPE REQUIRED

7 PERMITS REQUIRED BEFORE THIS WORK STARTS

A permit authorises this work in that place, on that day. It extends the safe system of work in this document — it does not replace it (HSE HSG250). The site issues the permit; record its number before work starts.

KD-PTW-LO-008 — Lifting Operations Permit

For offloading stillages and any craned or hoisted unit.

PERMIT NUMBER

8 EMERGENCY ARRANGEMENTS — COMPLETE FOR THIS SITE

FIRST AIDER AND LOCATION

NEAREST A&E

ASSEMBLY POINT

HOW THE ALARM IS RAISED

EMERGENCY ACCESS FOR THIS WORK AREA

SPILL / ENVIRONMENTAL RESPONSE

9 BRIEFING RECORD — EVERYONE WORKING UNDER THIS RAMS SIGNS BEFORE STARTING

By signing you confirm the contents of this RAMS have been explained to you, you understand the hazards and controls, and you will work to the sequence stated. Tell the supervisor if the work or the site does not match this document — work stops until it does.

NAME	COMPANY	SIGNATURE	DATE

10 PREPARED AND ACCEPTED

Prepared / adapted for this site by — I confirm I have adapted this document to the site, scored the risks, and that it describes how the work will actually be done.

PRINTED NAME	ROLE / COMPETENCE	COMPANY	SIGNATURE	DATE	TIME

Accepted for the site by — principal contractor or site manager review.

PRINTED NAME	ROLE	COMPANY	SIGNATURE	DATE	TIME

Review this RAMS if the work, the site or the law changes, and at least before each new phase of the works. Flatten the completed PDF before filing so the record cannot be silently edited.

R REVISION HISTORY

Every revision of this document, and every review that found nothing to change. The revision on the front of this sheet is the one you are holding — check kubitdocs.com for the current one before use.

Rev	Date	Class	What changed	Authorised by
D0	2026-09-11	first-issue	First issue.	— not yet approved —
A0	2026-09-11	review	Approved for issue by the author. Content unchanged from the reviewed draft; the draft status strip is removed. No independent third-party review has been carried out.	Author — director, UK principal contractor, SMSTS. Not an independent review.

Class: first-issue · material (the law, a control, a field or the scope changed — past buyers are notified) · editorial (wording or layout only) · review (checked, nothing changed) · withdrawal. Revision prefix D = draft, not approved and not for sale; A = approved for issue by the person named, on the date shown.