CLEANING AND MAINTENANCE INSTRUCTIONS FOR VEHICLE BODIES – EXTENDED VERSION

Box, insulated and refrigerated vehicle bodies

Scope of the instructions

These instructions define the rules for periodic inspections, cleaning, selection of cleaning agents, maintenance and procedures in the event of body damage. The section concerning sealants was prepared on the basis of the sealant manufacturer's guidelines and adapted to the body operating conditions.
Requirements specified by Plandex constitute additional operating rules.

Key rules

No pressure washing for the first 4 weeks

For the first 4 weeks after delivery of the body, do not use pressure washing.

After 4 weeks: min. 30 cm from sealant

When pressure washing, use a wide fan jet and maintain at least 30 cm from sealants.

Do not direct water at the electrical system

Protect junction boxes, sockets and connectors. Protect side marker lamps, cable glands and cable feed-throughs; do not spray at close range.

Use soft tools only

Use soft textile brushes, cloths and accessories that do not damage surfaces or flexible joints.

Rinse with clean water after chemical cleaning

Before use, confirm compatibility with body materials and sealant. Rinse away all detergent residues.

Inspect and maintain after cleaning

Check sealing joints, door seals, drains and electrical components. Regularly maintain rubber seals with silicone grease.

CAUTION

Do not use sharp tools, hard brushes, abrasive materials or aggressive chemical cleaning agents. Do not direct a hot or concentrated jet at sealing joints, edges or electrical components.

Basis of preparation

Prepared on the basis of the sealant manufacturer's guidelines. Parameters specified for individual products must not be directly applied to other sealants used in Plandex bodies. The type of **sealant is selected individually for each body. Information on the product used can be obtained directly from Plandex.**

1 Periodic inspection of sealing joints and body

Sealed areas do not require additional maintenance solely due to the use of sealant; however, their condition must be checked during periodic inspections of the entire body. In particular, assess the condition of the sealing joints and their adhesion to adjacent surfaces.

- Check sealing joints for cracks, cuts, voids, debonding, edge lifting and permanent deformation.
- Inspect bonded and sealed areas at walls, floor, corners, doors, strips, penetrations and fittings.
- Inspect door seals for abrasion, cracks, deformation and correct seating; after cleaning, apply silicone grease regularly.
- Check that valves and water drains are unobstructed; remove contamination without using sharp tools.
- Inspect bolted joints for loosening and corrosion; after dismantling joints fitted with self-locking nuts, use new nuts.
- Report any damage that may affect watertightness, thermal insulation or safety for repair before further operation.

2 Cleaning the body and sealing joints

Cleaning must not cause mechanical damage to flexible sealants, coatings, laminate, flooring or fittings. A wide fan jet and soft textile brushes are recommended.

Preparation for cleaning

- Remove the load and any loose items from the load compartment.
- Protect water-sensitive electrical components; do not wet-clean open or damp connectors.
- Remove loose dirt with a soft brush or vacuum cleaner.
- Before using cleaning agents, verify compatibility with laminate, aluminium, steel, plastics, rubber and the sealant used.

Main cleaning procedure

- Do not use a pressure washer for the first 4 weeks after delivery of the body - Plandex requirement.
- After 4 weeks, when pressure washing, keep the nozzle at least 30 cm from the sealant and use a fan-jet nozzle.
- Do not direct a concentrated jet at sealing-joint edges, corners, penetrations or bonded connections, side marker lamps, sockets or junction boxes.
- After using surfactants, rinse the surfaces thoroughly with clean water.
- Do not allow detergent to dry on the surface.

Floor and loading

Clean the floor without sharp scrapers or hard brushes. Do not drag pallets or heavy items across the floor. Lift and transport pallets - dragging may damage the wearing surface and joints.

3 Chemical resistance and selection of cleaning agents

Chemical resistance depends on the specific sealant used and the body material.
Chemical resistance data for one sealant must not be automatically applied to another.

Data from the manufacturer's documentation

For selected sealants used in the floor area, the manufacturer's documentation states unlimited resistance to contact with solutions at 23 °C for sodium hypochlorite (NaClO) up to 5 % by weight and sodium hydroxide (NaOH) up to 20 % by weight. Use of other substances, higher concentrations or higher temperatures requires consultation with the sealant manufacturer.

If products other than the factory-specified products have been used in the body, before using a cleaning agent check the current technical data sheet or resistance table for the specific product, or obtain confirmation from Plandex.

- Do not use a product solely on the basis that it is "safe for vehicles" - it must also be compatible with the sealant, rubber, laminate and metals.
- Avoid aggressive agents without confirmed material compatibility and avoid high temperatures.
- After every chemical wash, rinse the surface thoroughly with clean water.

4 Components requiring special protection

COMPONENT	CLEANING / MAINTENANCE RULE
Junction boxes and sockets	Do not direct a water jet at them. Clean the surface only; after contact with water, dry and inspect before use.
Cooling-mat power socket / connectors	Inspect contacts at least every 3 months and after moisture exposure, contamination or signs of corrosion. If necessary, clean them with an electrical contact cleaner (e.g. Contact Cleaner).
Side marker lamps / Cable feed-throughs / Cable glands	Do not direct a water jet at these components from close range. After cleaning, check mounting and watertightness and ensure that no water has entered.
Door seals	Clean gently; once dry, maintain regularly with silicone grease. Check continuity and correct seating.
Sealing joints / sealed areas	Do not pry or scrape. After intensive cleaning, check the sealant surface condition and its adhesion to the substrate.
Valves / drains	Keep unobstructed; remove dirt without sharp tools. After cleaning, ensure that no water remains in the body.

If water is present in a junction box, socket or connector

Do not use the affected circuit until it has been dried and inspected. Before restarting, eliminate the cause of the leakage.

5 Repair of damaged sealing joints – subject to Plandex approval

The repair plan and specification must be approved by Plandex in every case.
Damaged, cut or debonded sealing joints must be repaired using an appropriate, system-compatible sealant. Do not use unapproved substitutes or unauthorised primers, activators or cleaning agents.

a. Surface preparation

- Surfaces and sealed areas to be repaired must be dry, clean and free of grease.
- For repairs involving a product covered by the manufacturer's documentation: when applying a new layer over existing sealing, clean with a suitable cleaning agent (in accordance with the approved repair plan); the new sealant may be applied after approx. 15 minutes without priming.
- If the old sealing is removed, remove all residues, then clean and dry the surface and prepare and prime it in accordance with the instructions for the substrate and sealant used (and the approved repair plan).
- For other sealants and adhesives used in the body, follow the product-specific application instructions; do not automatically apply the parameters stated above.

b. Conditions for carrying out the work

For repair work covered by the sealant manufacturer's documentation, maintain the following application conditions:

- Application temperature: +5 °C to +35 °C.
- Temperature of the repaired surface: at least 3 °C above the dew point.
- The surface must be free of water; the manufacturer's documentation specifies a maximum surface moisture content of 17 %.
- If the primer's specified flash-off or open time has been exceeded, repeat the surface preparation in accordance with the product application instructions.

c. Curing after repair

The repaired sealant must be allowed to cure fully. Curing time depends, among other factors, on the product, temperature and humidity. Low temperature and low humidity slow polymerisation. Before re-cleaning, loading or using the repaired area, ensure that the sealant has reached the required degree of cure specified in the product data sheet or approved repair procedure.

Body repairs

Repairs, modifications or other interventions to walls, floor, doors, structural components, electrical system, sealed areas or other body components are not permitted without prior **approval from Plandex. The scope and method of all work must be approved** by Plandex in each case. Unauthorised work may affect watertightness, thermal insulation and safety of the body and may invalidate warranty rights for the affected area.

Primer guidance from the manufacturer's documentation

Before making any bonded joint, prepare and activate the surfaces in accordance with the application instructions for the bonding system used. For specified substrates, including polymer, metal and laminate surfaces, the manufacturer specifies suitable activators or primers.

The selected product must be compatible with the substrate and the adhesive or sealant used. To determine the correct surface-preparation method and product, contact Plandex at naprawy@plandex.pl

These solutions are not a universal repair procedure for all Plandex bodies. Surface preparation and product selection are determined individually according to the **materials used and the body manufacturing process.**

SERVICE SECTION

Items 6-9 concern service and repair work involving chemical products. Such work must be carried out in accordance with the current technical data sheets and safety data sheets of the products used.

6 General conditions for service work

When repairs involve chemical products, follow occupational health and safety requirements and work instructions, current safety data sheets and product application instructions. Provide adequate ventilation; the applicable workplace exposure limits for substances in the products must not be exceeded.

7 Personal protective equipment

- Avoid skin and eye contact and inhalation of vapours, aerosols and decomposition products.
- Use the personal protective equipment specified in the current product safety data sheet.
- Wash hands, forearms and face before breaks and after work; remove contaminated clothing and wash it before reuse.
- Do not eat, drink or smoke while using chemical products.

8 Transport and storage of repair products

- Store products in sealed original containers within the stated shelf life and at the storage temperature specified on the packaging or in the product data sheet.
- The manufacturer’s documentation specifies a minimum storage temperature of +5 °C for the products described.
- During transport, protect packaging against mechanical damage and transport products in accordance with applicable requirements.

9 Waste disposal

Dispose of waste from cleaning agents, sealants and auxiliary materials in accordance with applicable regulations and the product safety data sheet. Minimise waste generation and do not allow products to enter soil, watercourses, drains or sewer systems.

10 Checklist after cleaning / maintenance

- ☐ Sealing joints and sealed areas free from cracks, cuts, voids and debonding.
- ☐ Door seals clean, dry, correctly seated and maintained if necessary.
- ☐ Sockets, junction boxes, connectors, side marker lamps, cable feed-throughs and cable glands dry; no water ingress.
- ☐ Valves and drains unobstructed; no standing water in corners.
- ☐ Surfaces thoroughly rinsed free of detergent residues.
- ☐ Floor free from mechanical damage after cleaning and loading.
- ☐ Any identified damage reported for repair before further operation.