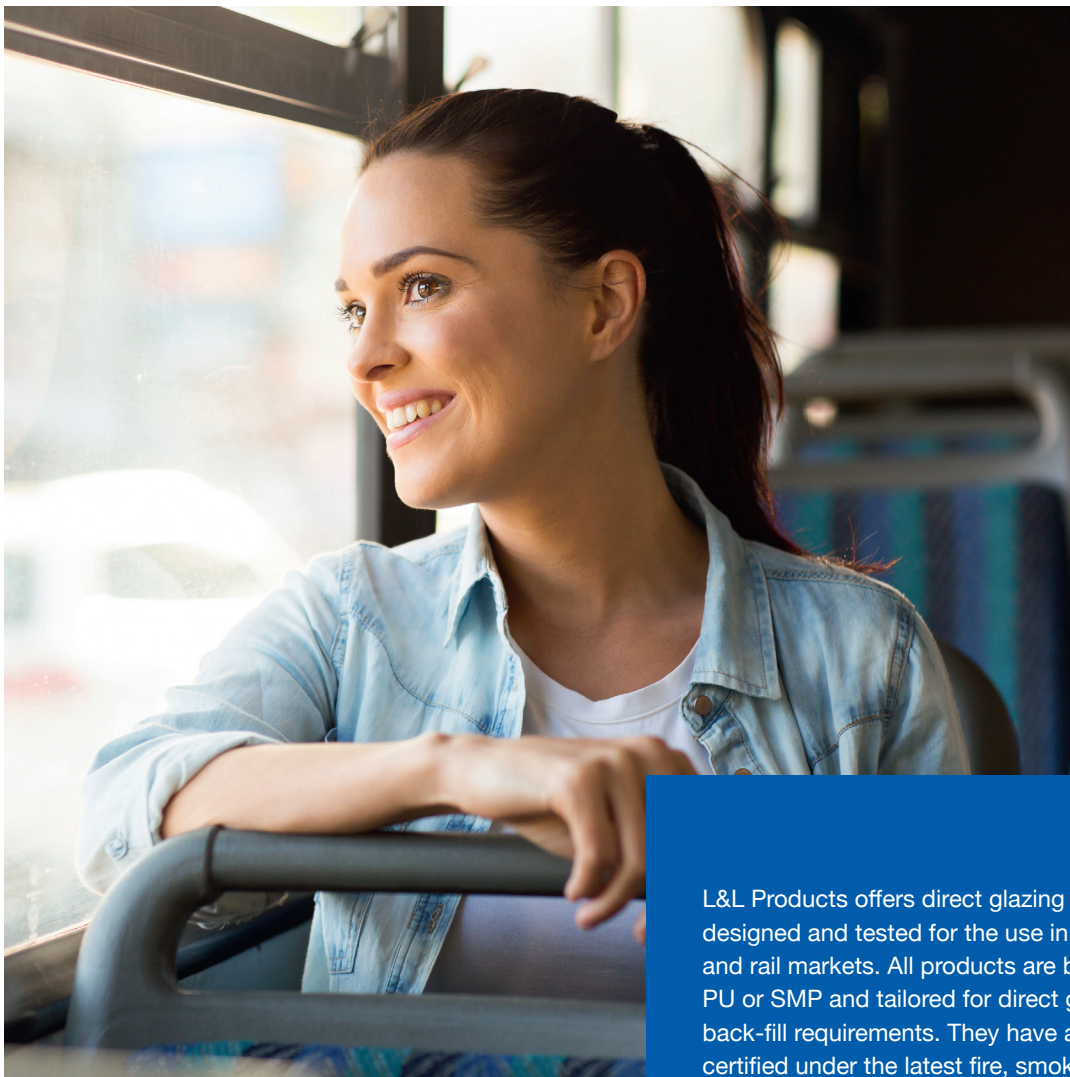




L&L Seal A-J Series For Direct Glazing.



L&L Products offers direct glazing solutions designed and tested for the use in global bus and rail markets. All products are based on PU or SMP and tailored for direct glazing and back-fill requirements. They have also been certified under the latest fire, smoke, and toxicity regulations, including EN45545-2.

Innovative solutions for direct glazing and sealing

L&L Seal A-J grades for your application needs

L&L Seal A-J series elastomeric adhesives and sealants are designed with the mechanical properties, the adhesion, and the durability necessary for direct glazing, backfilling, and sealing of bus and rail applications.

L&L Seal A-J105 and A-J115 are based on a polyurethane (PU) backbone. These products feature enhanced strength, durability, and long-term environmental stability in part due to their highly cross-linked final structure. When used in combination with L&L Seal activators and primers, they show proven adhesion to substrates used in the bus and rail industry, such as steel, aluminum, galvanized steel, E-coat, paint, and composites.



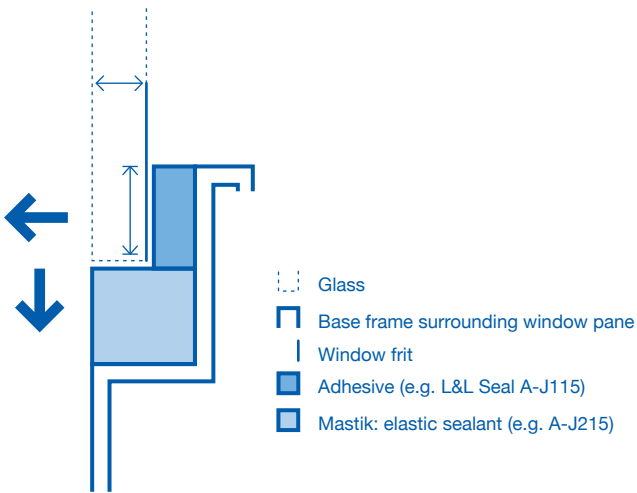
L&L Seal A-J215, 225, and 235 are silane modified polymer-based products (SMP), recommended for light direct glazing, sealing and backfilling applications. Notable properties of A-J215, 225, and 235 are their excellent UV resistance and low VOC content. The products are isocyanate-free, have excellent tooling properties, and are able to bond without pre-treatment to many surfaces eliminating solvent containing primers.

Products	Mineral glass direct glazing	Mineral glass backfill	Cassette window bonding	Cassette window backfill	Polycarbonate window bonding	Polycarbonate window back fill
A-J105	●	—	●	—	—	—
A-J115	●	—	●	—	—	—
A-J215	—	●	●	●	●	●
A-J225	—	●	●	●	●	●
A-J235	—	●	●	●	●	●

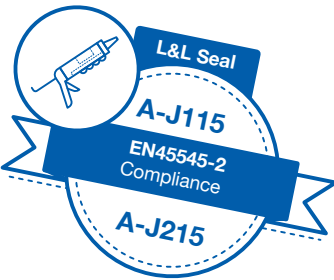
Typical applications for L&L Seal A-J products

L&L Seal A-J105 and A-J115 are PU-based products designed to bond large windows. Due to their long open time they enable easier application and permit fitting of large, heavy windows favored by bus and rail designers. L&L Seal A-J100 series PUs offer a combination of high strength after cross-linking, and high elongation to ensure a strong, durable bond. Both products are excellent choices for direct glazing as well as cassette window bonding.

L&L Seal A-J215, 225, and 235 exhibit high elongation in combination with medium strength. These products are designed for backfilling and sealing of bus and rail windows but are also used to bond windows in lighter applications, such as caravan, RV, construction, and agricultural vehicles.



Products	Colors	Chemistry	Tack-free time	Cure rate	Elongation at break	Shore A hardness	Over-paintable	UV resistant	Tensile strength
A-J105	Black	PU	35 min	3mm/24h	500%	65 approx.	Yes	+	7.5MPa–1090psi
A-J115	Black	PU	40 – 70 min	2–3mm/24h	400%	60 approx.	Yes	+	7.5MPa–1090psi
A-J215	Black, White, Grey	SMP	30 min	3mm/24h	250%	50 approx.	Yes	++	2.0MPa–290psi
A-J225	Black, White, Grey	SMP	20 min	3mm/24h	150%	60 approx.	Yes	++	3.2MPa–464psi
A-J235	Black	SMP	15 min	3–4mm/24h	350%	60 approx.	Yes	++	3.8MPa–550psi



L&L Seal A-J products certified for use

L&L Seal A-J115 and A-J215 comply with the most stringent specifications demanded by the rail industry – the EN45545-2 fire, smoke and toxicity (FST) regulations. Additionally, they meet the requirements for adhesives and sealants in applications demanding long-term durability: excellent resistance to chemicals, environmental influences, and UV exposure.

L&L Products Technical Service tests adhesion of our products against customer specific substrates and is available to help you design the best glass-bonding process and application for your vehicle.



Engineered Innovation.

The information contained herein is, to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty, or guarantee is made regarding its accuracy, reliability, or completeness by L&L Products, Inc. or any of its affiliates.

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