

Expandable Polystyrene (EPS)**E series**

Manufacturer: Loyal Group / KINGPOR

Characteristics

Non-fire-retardant EPS; one expansion. Low density, high strength, good fusion and surface finish.

Principal applications

Electronic-appliance packaging, fish boxes, artworks, sports protection, floats and blocks.

Grade	Expansion	Bead size (mm)	Foam density (g/L)
E-MS	1 expansion	1.2–1.8	13–15
E-SA	1 expansion	0.9–1.4	14–17
E-SB	1 expansion	0.7–1.1	15–20
E-S	1 expansion	0.5–0.9	18–25

Expandable Polystyrene (EPS)

B series

Manufacturer: Loyal Group / KINGPOR

Characteristics

Non-fire-retardant EPS; one expansion. Short cooling and moulding cycles, low energy consumption, low VOC and low density.

Principal applications

Electronic-appliance packaging and other packaging.

Grade	Expansion	Bead size (mm)	Foam density (g/L)
B-MS	1 expansion	1.2–1.8	16–20
B-SA	1 expansion	0.9–1.4	17–22
B-SB	1 expansion	0.7–1.1	18–25
B-S	1 expansion	0.5–0.9	20–30

Expandable Polystyrene (EPS)

H series

Manufacturer: Loyal Group / KINGPOR

Characteristics

Non-fire-retardant EPS. Lightweight products and economical consumption.

Principal applications

Light blocks, cutting boards, lost-foam moulds and lightweight packaging.

Grade	Expansion	Bead size (mm)	Foam density (g/L)
H-MS	1 expansion	1.2–1.8	11–15
H-SA	1 expansion	0.9–1.4	11–15
H-SB	1 expansion	0.7–1.1	13–16
H-S	1 expansion	0.5–0.9	13–18
H-MS	3-5 expansions	1.2–1.8	6–7
H-SA	3-5 expansions	0.9–1.4	7–8
H-SB	3-5 expansions	0.7–1.1	8–9
H-S	3-5 expansions	0.5–0.9	9–10

Expandable Polystyrene (EPS)

GF series

Manufacturer: Loyal Group / KINGPOR

Characteristics

Flame-retardant EPS without HBCD; one expansion.

Principal applications

Building insulation; also electronics structural parts.

Grade	Expansion	Bead size (mm)	Foam density (g/L)
GF-MS	1 expansion	1.2–1.8	14–18
GF-SA	1 expansion	0.9–1.4	15–20
GF-SB	1 expansion	0.7–1.1	18–25
GF-S	1 expansion	0.5–0.9	20–35

Expandable Polystyrene (EPS)

GF(L) series

Manufacturer: Loyal Group / KINGPOR

Characteristics

Low pentane and VOC; block and shape moulding; without HBCD; one expansion.

Principal applications

Building insulation; also electronics structural parts.

Grade	Expansion	Bead size (mm)	Foam density (g/L)
GF(L)-MS	1 expansion	1.2–1.8	18–25
GF(L)-SA	1 expansion	0.9–1.4	18–30
GF(L)-SB	1 expansion	0.7–1.1	20–40
GF(L)-S	1 expansion	0.5–0.9	22–50

Expandable Polystyrene (EPS)

LR series

Manufacturer: Loyal Group / KINGPOR

Characteristics

Grey flame-retardant EPS; low thermal conductivity; without HBCD; one expansion.

Principal applications

Thermal insulation and construction materials.

Grade	Expansion	Bead size (mm)	Foam density (g/L)
LR-1915	1 expansion	1.0–1.8	17–20
LR-1610	1 expansion	0.7–1.1	18–22
LR-1608	1 expansion	0.5–0.8	25–40
LR -1925A	1 expansion	1.8–2.5	15–20

Expandable Polystyrene (EPS)**D series**

Manufacturer: Loyal Group / KINGPOR

Characteristics

Customized high-antistatic EPS; one expansion; limited supply. Final-product surface impedance: 10^9 - 10^{11} ohms.

Principal applications

Antistatic packaging for touchscreens, LCD panels and similar products.

Grade	Expansion	Bead size (mm)	Foam density (g/L)
D-B-MS	1 expansion	1.2–1.8	15–20
D-B-SA	1 expansion	0.9–1.4	18–22
D-B-SB	1 expansion	0.7–1.1	20–40
D-B-S	1 expansion	0.5–0.9	25–40

Expandable Polystyrene (EPS)**G series**

Manufacturer: Loyal Group / KINGPOR

Characteristics

Customized non-fire-retardant EPS; rounded, high-strength particles; one expansion; limited supply.

Principal applications

Filtration media, water-resisting layers and filling layers.

Grade	Expansion	Bead size (mm)	Foam density (g/L)
G-XXL	1 expansion	≥4.0	25–50
G-XL	1 expansion	2.80–3.60	20–50
G-L	1 expansion	2.20–2.80	20–50

Expandable Polystyrene (EPS)

Customized fine-bead grades

Manufacturer: Loyal Group / KINGPOR

Grade	Bead size (mm)	Foam density (g/L)
H-4S	0.3-0.6	18-40
E-4S	0.3-0.6	20-50
B-4S	0.3-0.6	22-50

H-4S

One expansion. Exclusively for lost-foam casting; rapid evaporation, low carbon and high adhesion, as described in the supplied specification.

E-4S and B-4S

One expansion. Low smell and noise during pre-expansion. Filler applications include toys, pillows, backrest cushions and precision structures.

Separate source classification

Appendix: XLR, HP and XHP

Manufacturer: Loyal Group / KINGPOR

The supplied document places these families under “Extruded Polystyrene” headings. Classification remains unconfirmed; these records are retained separately and are not included in the ordinary EPS portfolio summary.

Grade	Bead size (mm)	Foam density (g/L)	Source category
XLR-1610	0.95-1.25	≥15	Fire retardant
XLR-1608	0.7-0.95	≥25	Fire retardant
HP-1501	0.9-1.4	≥25	Non-fire retardant
XHP-1501	0.9-1.4	≥25	Non-fire retardant

XLR

One expansion. Grey; low thermal conductivity; without HBCD. Thermal insulation and construction materials.

HP

One expansion. High impact resistance and strength; good fusion and cushioning. Appliances, LCD panels, computer parts and electronic parts.

XHP

One expansion. Fast expansion, good fusion, strength, surface finish, impact resistance and toughness. Car bumpers, safety seats and LCD-panel packaging.

Supplier reference information

Packing, origin and qualifications

Manufacturer: Loyal Group / KINGPOR

Packing information

Packing	Bag weight	20 ft container	40 ft container
Paper bag	25 kg	17 MT	25.5 MT
Flecon bag	750 kg	15 MT	25.5 MT
Flecon bag	850 kg	17 MT	25.5 MT

Source origin availability

Series	China	Taiwan
E	Yes	Yes
B	Yes	Yes
H	Yes	Yes
GF	Yes	Yes
GF(L)	No	Yes
G	Yes	No
D	Yes	No
LR	Yes	No
XLR	Yes	No
HP	Yes	No
XHP	Yes	No

Disclaimer

The supplied data reflect the manufacturer's current knowledge and experience. Processing and application factors require users to carry out their own investigations and tests. No warranty is implied for particular properties or fitness for a purpose. Descriptions, data, proportions and weights may change without notice. Recipients must observe applicable laws and obligations. The manufacturer disclaims direct, incidental or indirect injury or harm from operation according to the document.

Reformatted from the supplied KINGPOR specifications. No numerical specifications for the additional GFM family were supplied; none have been invented. Manufacturer addresses and supplier website links are omitted in this Linxchem edition.