



PE-TIE

MAH-Grafted PE Tie-Layer Platform –
Structure-Specific Sub-Grades

PRELIMINARY ENGINEERING DATA

DOCUMENT ID JPI-TDS-PE-TIE
ISSUE DATE 2026-07-22

OWNER TECHNICAL & R&D
STATUS CONTROLLED DEVELOPMENT DATA

PRODUCT OVERVIEW

A tie-layer platform, not one universal adhesive grade. Packaging barrier layers, aluminium laminates and three-layer pipe coatings require different resin rheology, reactivity, layer thickness and qualification methods. Applications: PE/PA or PE/EVOH structures; Aluminium/PE laminates; Multilayer pipe and sheet. Key features: Reactive tie-layer functionality; High elongation target; Film/sheet/pipe coextrusion development.

PRELIMINARY TECHNICAL PROPERTIES

PROPERTY / CONDITION	TEST METHOD	PROVISIONAL VALUE	UNIT
Melt flow rate, 190°C/2.16 kg	ISO 1133-1	1.5 ± 0.5	g/10 min
Density, 23°C	ISO 1183-1	0.926-0.936	g/cm³
Tensile stress at yield	ISO 527-2	10-14	MPa
Elongation at break	ISO 527-2	> 600	%
Vicat softening temperature, A50	ISO 306	≥ 95	°C
Moisture content	ISO 15512	≤ 0.10	wt. %
Peel: PE/PA or PE/EVOH structure	Structure, tie thickness, conditioning, angle and speed fixed	To be established	N/cm
Peel: 3-layer PE pipe coating	ISO 21809-1 / agreed coating	To be established at 23°C and elevated temperature	

QUALIFICATION & USE

- Values are development targets, not a sales specification or certificate of analysis.
- Final limits require independent production-lot validation using the cited methods and controlled specimen preparation.
- Regulatory, food-contact, medical, UL, IEC, ATEX or OEM compliance applies only when confirmed in a grade-specific document.