EU TRADE EXPLORER

# Market evolution: Polymer resins (CN 3907) — 2015–2025

## Introduction

The product group CN 3907 covers polyacetals, other polyethers, epoxide resins, polycarbonates, alkyd resins, polyallyl esters and other polyesters in primary forms – a broad basket of engineering and commodity thermoplastics that feed packaging, automotive, construction and electronics value chains. This report examines the evolution of the European Union's external trade in CN 3907 with non-EU countries over the period 2015 to 2025, using annual frequency data. The analysis focuses on the shifting balance of trade, the reconfiguration of key partner countries, the impact of price shocks and the composition of trade at the sub-heading level. All figures are taken from the Tradedashboard.eu dataset and are cited only when they appear directly in the official extract.

## 1. From surplus to deficit: the structural reversal of EU polymer resin trade

- EU trade balance in CN 3907 flipped from a significant surplus to a marginal deficit over the decade.
- Import volumes surged while export volumes contracted, driving a marked divergence.
- Rising export prices only partially cushioned the deteriorating trade balance.

### EU trade balance in CN 3907 flipped from a significant surplus to a marginal deficit over the decade

In 2015 the EU ran a trade surplus of EUR 2.24 billion with non-EU countries. By 2025 that surplus had melted into a small deficit of EUR 159 million, a swing of minus 107.1 percent (overview). The deterioration was almost continuous, interrupted only by a temporary jump in 2021-2022 when export values spiked before falling back. The net import reliance indicator – the share of apparent consumption that is imported – moved from -8.5 % (net exporter) in the first year to -0.4 % in the last, with a brief positive reading of +2.3 % in 2022 (net-import reliance). The EU thus became virtually self-balancing in this product group, a stark turnaround from its clear net-exporter position ten years earlier.

| Indicator (EUR, quantities) | 2015 | 2025 | Change |
|---|---|---|---|
| Exports value (EUR) | 5 215 727 903 | 4 909 926 458 | –5.9 % |
| Imports value (EUR) | 2 980 032 099 | 5 068 698 805 | +70.1 % |
| Trade balance (EUR) | +2 235 695 804 | –158 772 347 | –107.1 % |
| Net import reliance | –8.5 % | –0.4 % | +95.2 % (shift towards imports) |

### Import volumes surged while export volumes contracted, driving a marked divergence

Over the window imports in physical terms grew by 82.2 %, from 1.73 million tonnes to 3.15 million tonnes, whereas exports shrank by 22.4 %, from 2.46 million tonnes to 1.91 million tonnes (overview). Consequently, the volume gap between imports and exports widened dramatically. The EU's export-to-import volume ratio swung from 1.42 to 0.61, underscoring a structural reliance on foreign-produced resins to meet domestic consumption, while domestic production volumes fell by 14.4 % between 2015 and 2024 (production volumes).

### Rising export prices only partially cushioned the deteriorating trade balance

Export unit values rose by 21.3 % (from EUR 2 121/t to EUR 2 572/t), while import unit values fell by 6.7 % (from EUR 1 723/t to EUR 1 608/t) (overview). The EU therefore moved up the value chain, exporting higher-priced specialities and importing cheaper bulk grades. However, the positive price effect was insufficient to offset the overwhelming volume shift, so the value balance still turned negative.

## 2. Geopolitical pivots and supply-chain shocks rewire partner geography

- Asia, especially China, Vietnam and Türkiye, replaced traditional import sources, driving import diversification.
- The 2022 sanctions wiped out the Russian market, while the United Kingdom remained the top export destination.
- Pandemic-era price shocks hit key import channels from Asia, reshaping cost structures.

## Asia, especially China, Vietnam and Türkiye, replaced traditional import sources, driving import diversification

The Herfindahl-Hirschman Index for imports fell from 1 108 to 916 (–17.3 %), indicating a less concentrated sourcing base (concentration). The fastest growers among the top suppliers were Vietnam (from nearly zero to EUR 354 million, a +173 870 % increase), China (from EUR 132 million to EUR 635 million, +382 %), and Türkiye (from EUR 229 million to EUR 749 million, +227 %) (import partners). By contrast, the United Kingdom's share in EU imports shrank by 23.6 %, reflecting the post-Brexit decoupling. Korea held its top rank but grew more modestly (+46.8 %).

| Top import partners | 2015 value (EUR) | 2025 value (EUR) | Change |
|---|---|---|---|
| Korea, Republic of | 492 507 827 | 722 895 391 | +46.8 % |
| Türkiye | 228 820 047 | 749 224 199 | +227.4 % |
| China | 131 715 827 | 634 993 359 | +382.1 % |
| United States | 543 136 485 | 548 963 155 | +1.1 % |
| United Kingdom | 452 334 733 | 345 718 282 | –23.6 % |
| India | 84 783 944 | 124 546 922 | +46.9 % |
| Viet Nam | (nil) | 353 564 479 | +173 870 % |

## The 2022 sanctions wiped out the Russian market, while the United Kingdom remained the top export destination

Among export destinations, the United Kingdom stayed the largest market (–2.5 % overall), absorbing around EUR 957 million in 2025 (export partners). The most dramatic change was the collapse of the Russian Federation market: exports fell by 88.7 % from EUR 296 million in 2015 to just EUR 33 million in 2025, with the steepest drop occurring after the 2022 sanctions. Other notable decliners were India (–18.2 %) and Türkiye (–15.3 %). Meanwhile the United States (+32.3 %) and Switzerland (+21.6 %) provided some offsetting growth, and export concentration as measured by HHI rose modestly from 793 to 883 (+11.4 %), implying a slightly less diversified customer base today (concentration).

## Pandemic-era price shocks hit key import channels from Asia, reshaping cost structures

The volatility analysis identifies several acute price shocks centred in 2021-2022. The most severe import-side events were: China (+49.7 % price shift relative to the adjacent baseline, abnormality 10.9), Taiwan (+76.8 %, abnormality 10.0) and Korea (+52.8 %, abnormality 6.6) (supply shocks). On the export side, a strong price shock hit Egypt (+39.8 %, abnormality 83.3). These transitory spikes reflected tight global logistics and surging demand, temporarily inflating import bills. The most volatile trade flows in terms of quantity were Viet Nam (coefficient of variation 1.02) and Egypt (0.87) for imports, and

Russia (0.54) for exports (volatility). The shocks have subsided but left lasting marks on sourcing patterns.

## 3. Segment-level transformation: how PET, polyethers and epoxies powered the import wave

- High-viscosity PET and other polyethers dominated the import surge, reflecting packaging and industrial demand.
- Epoxide resins and saturated polyesters held export value despite volume losses, underscoring EU specialisation.
- Domestic production volumes fell, but higher unit values maintained the value-added position of the EU industry.

### High-viscosity PET and other polyethers dominated the import surge, reflecting packaging and industrial demand

Looking at the sub-heading breakdown, the fastest-growing import lines were “PET, viscosity ≥ 78 ml/g” (CN 390761), which jumped from 851 500 tonnes in 2017 (first available) to 1.38 million tonnes in 2025, and “polyethers” (CN 390729), which reached 338 000 tonnes in 2025 (data starting in 2022) (product compare). The latter also carried high value, with import spending reaching EUR 883 million in 2025. Together with “PET, viscosity < 78 ml/g” (CN 390769) and “saturated polyesters” (CN 390799), these four sub-headings accounted for the lion’s share of the import volume increase. In terms of value, the top import categories in 2025 were PET ≥ 78 ml/g (EUR 1.34 billion), polyethers (EUR 0.88 billion) and saturated polyesters (EUR 0.88 billion).

| Main import sub-headings (CN8) | Quantity 2017 (t) | Quantity 2025 (t) | Value 2025 (EUR) |
|---|---|---|---|
| 390761 – PET, visc ≥78 ml/g | 851 510 | 1 382 728 | 1 340 310 175 |
| 390729 – Polyethers | (avail. 2022) | 337 679 | 882 978 570 |
| 390769 – PET, visc <78 ml/g | 256 534 | 435 630 | 433 782 445 |
| 390799 – Saturated polyesters | 346 614 | 338 351 | 877 217 660 |
| 390730 – Epoxide resins | 169 865 | 147 318 | 580 078 464 |

### Epoxide resins and saturated polyesters held export value despite volume losses, underscoring EU specialisation

EU exports are dominated by higher-value products. Saturated polyesters (CN 390799) remained the top export by value (EUR 1.09 billion) and polyethers (CN 390729, EUR 1.38 billion in 2025) the largest single category. Epoxide resins (CN 390730) recorded an export value of EUR 672 million despite a 33 % volume decline over the period, because unit prices rose from EUR 3 230/t to EUR 4 420/t. This pattern – falling volumes but rising unit prices – holds for almost all major export sub-headings, confirming that the EU is specialising in performance grades. Countries with the highest revealed symmetric comparative advantage in 2025 are Lithuania (RSCA 0.68), Belgium (0.30) and Spain (0.18), while several central and eastern European members are net importers of these resins (specialisation).

### Domestic production volumes fell, but higher unit values maintained the value-added position of the EU industry

EU production of CN 3907 group resins declined from 11.4 million tonnes in 2015 to an estimated 7.8 million tonnes in 2024 (–14.4 %), while the production value rose from EUR 14.2 billion to EUR 15.2 billion (+6.6 %) (production volumes). The implied domestic unit price climbed from EUR 1.24/kg to EUR 1.94/kg, outpacing import price trends. The EU industry thus produced fewer tonnes but sold each tonne at a significantly higher price, a typical strategy of moving toward specialty and high-performance resins while reliance on basic imported grades grows.

## Conclusion

The EU’s external trade in polymer resins (CN 3907) between 2015 and 2025 underwent a profound structural shift. A once-comfortable surplus was eliminated by a surge in imports – particularly of PET and polyethers – from a rapidly diversifying set of Asian suppliers, while exports, though increasingly high-value, shrank in volume. Geopolitical events, notably the Ukraine-related sanctions that erased the Russian market, and pandemic-induced price shocks accelerated the re-wiring of trade routes. The European polymer resin industry has responded by moving up the value scale, compressing production volumes while raising unit values. The result is a bloc that today is essentially balanced in this product group but structurally more dependent on external sourcing for commodity-grade resins. This twin reality of higher added-value at home and greater import reliance abroad will frame the sector’s competitive position and vulnerability in the years ahead.

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