polycondensation

A polymerization in which the growth of polymer chains proceeds by condensation reactions between molecules of all degrees of polymerization.

Notes:

1. The growth steps are expressed by:

$$P_x + P_y \to P_{x+y} + L$$
 $\{x\} \in \{1, 2, ...\infty\}; \{y\} \in \{1, 2, ...\infty\}$

where P_x and P_y denote chains of degree of polymerization x and y, respectively, and L a low-molar-mass by-product.

2. The earlier term 'polycondensation' was synonymous with 'condensation polymerization'. It should be noted that the current definitions of polycondensation and condensative chain polymerization were both embraced by the earlier term 'polycondensation'.

Source:

PAC, 1996, 68, 2287 (Glossary of basic terms in polymer science (IUPAC Recommendations 1996)) on page 2307