Interstellar molecules with a peptide link -NH-C(=O)-, like formamide ($\text{NH}_2\text{CHO}$) and isocyanic acid (HNCO) are notably interesting for their potential role in pre-biotic chemistry. For the first time, we report the detection of both molecules towards the protostellar shock L1157-B1 and L1157-B2, with the IRAM 30m telescope. Analysis of the line profiles shows that the emission arises from the outflow cavities associated with B1 and B2. From a simple rotational diagram analysis, molecular abundance of $\approx (0.4\text{--}1.1) \times 10^{-8}$ and $(3.3\text{--}8.8) \times 10^{-8}$ are derived for $\text{NH}_2\text{CHO}$ and HNCO, respectively. The shock regions B1 and B2 appear to be among the richest Galactic sources of HNCO and $\text{NH}_2\text{CHO}$ molecules. We have observed a narrow linear correlation between their abundances, suggesting that the two species are chemically related. Comparison with astrochemical models favours molecule formation on ice grain mantles, with $\text{NH}_2\text{CHO}$ generated from hydrogenation of HNCO.