packages made with the base laminates result in blisters with suitable rigidity and moisture barrier protection having a thickness greater than 100 µm.

[0010] In particular embodiments, blister packages may comprise one or more cavities and a cover or lid. Each of the cavities is configured to hold a cartridge which can be structured to be adapted to a dry powder inhaler and the cartridge can include a formulation for pulmonary delivery. The formulation can comprise an active ingredient, including but not limited to, a small molecule, protein, peptide, nucleic acid molecule or a combination thereof. In this and other embodiments, the cartridge can comprise a formulation for the treatment of for example, diabetes and the active ingredient in the formulation can be selected from peptides, including but not limited to, insulin, GLP-1, active fragments thereof, analogs thereof, or combinations thereof. In other embodiments, the active ingredient can be selected from any peptide or active agent that can be delivered by the pulmonary route, including, insulin, oxytocin, glucagon, parathyroid hormone, oxyntomodulin, peptide YY, glucagon like peptide 1, sumatriptan, peptidyl peptidase IV inhibitor, parathyroid hormone, ~~neurotransmmiter~~ neurotransmitter agonist and antagonists, deoxyribonuclease I, active fragments thereof, analogs thereof, and combinations thereof.

[0011] Blister packages can be provided for single dosing, and/or multiple dosing, including, daily dosing of a pharmaceutical formulation, for two or more days, or a combination of multiple blisters can be provided for weekly or monthly supply as needed.

[0012] In still yet a further embodiment, blister packages can comprise a cartridge having a formulation for treating a disease comprising an inhalable dry powder composition comprising a diketopiperazine. In one embodiment, the diketopiperazine can have a formula 3,6-*bis*-(4-X-aminobutyl)-2,5-diketopiperazine, wherein X is selected from the group consisting of succinyl, glutaryl, maleyl, and fumaryl. In one embodiment, the dry powder composition can comprise a diketopiperazine salt; wherein the diketopiperazine salt can be an inorganic salt including, sodium, potassium, magnesium, lithium, cesium, and calcium. In another embodiment, the diketopiperazine can be an organic salt, including, triethylamine, butylamine, diethanolamine and