

ABSTRACT

The present invention provides a battery separator with a high-heat-resistant ceramic coating, wherein the battery separator comprises a base membrane and a ceramic coating coated thereon, the ceramic coating includes ceramic powder and a binder, the binder is used for binding the ceramic powder on the base membrane, and the ceramic powder further includes at least one inorganic substance A with a density of 5-15 g/cm³. The present invention has the beneficial effect that when the base membrane is coated with the ceramic coating at least containing the inorganic substance A with the larger density, the inorganic substance A can play a role of “pillar” in the three-dimensional structure of the separator due to larger gravity so as to form a more stable rigid structure, thereby resisting large-area shrinkage caused by stress release due to the movement of molecular chains in the separator under a high-temperature environment.