

ABSTRACT

5 An improved polyurethane-urea elastic fiber is
obtained by incorporating a specific urea compound
prepared by reacting the following compounds together:

10 (a) a nitrogen-containing compound having both at
least one bifunctional amine group selected from a group
consisting of a primary amine group and a secondary amine
group and at least one nitrogen-containing group selected
from a group consisting of a tertiary nitrogen group and
a heterocyclic nitrogen group;

(b) an organic diisocyanate; and

15 (c) at least one compound selected from the group
consisting of a mono- or di-alkylmonoamine, an
alkylmonoalcohol and an organic monoisocyanate.

20 With the incorporation of the specific urea
compound, the polyurethane-urea elastic fiber which can
be fast dyed exhibits enhanced thermosettability and
increased elastic functions can be produced through a
stabilized spinning process. The improved thermosetting
property enables end use products of the present fiber
such as swimsuits and panty hose to be firmly shaped and
to be substantially free from grinning.