

ABSTRACT

HOSE, HOSE ASSEMBLY, AND PREPARATION METHOD

An ultra-high-pressure and equal-diameter acid fracturing hose assembly, comprising a hose body and a metal joint. The metal joint comprises an inner pipe (1), a first outer pipe (2) sleeved on the outer side of the inner pipe, a second outer pipe (3) sleeved on the outer wall of the first outer pipe, and a loop (4) threadedly connected to an inner end of the inner pipe; the first outer pipe and the second outer pipe are fastened separately; the outer wall of the loop is provided with an outer slot; an end of the first outer pipe is provided with an inner boss fitting the outer slot; the inner end of the inner pipe is provided with a connecting portion; the outer wall of the inner pipe is provided with first protrusions (6); the inner wall of the first outer pipe is provided with second protrusions (5) engaged with the first protrusions in a staggered manner; the hose body is clamped between the engagement surfaces of the first protrusions and of the second protrusions; the inner wall of the second outer pipe is provided with a plurality of small protrusions (13). The ultra-high-pressure and equal-diameter acid fracturing hose assembly can withstand large in-pipe pressure and high tensile force without separation between a hose and a metal joint, has excellent sealing performance and is not prone to leakage. In addition, provided are an acid fracturing hose and a preparation method therefor.

FIG. 1