

Title (en)

FERRITIC HEAT-RESISTANT STEEL AND FERRITIC HEAT TRANSFER MEMBER

Title (de)

FERRITISCHER HITZEFESTER STAHL UND FERRITISCHE WÄRMEÜBERTRAGUNGSTEIL

Title (fr)

ACIER FERRITIQUE RÉSISTANT À LA CHALEUR ET ÉLÉMENT DE TRANSFERT THERMIQUE FERRITIQUE

Publication

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Application

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Abstract (en)

This invention provides a ferritic heat transfer member (4) that is excellent in heat transfer characteristics and steam oxidation resistance properties, and a heat resistant ferritic steel (1) that is capable of realizing the ferritic heat transfer member (4). The heat resistant ferritic steel (1) includes a base material (2), and an oxidized layer A on the surface of the base material (2). The base material (2) has a chemical composition containing, in mass%: C: 0.01 to 0.3%, Si: 0.01 to 2.0%, Mn: 0.01 to 2.0%, Cr: 7.0 to 14.0%, N: 0.005 to 0.15%, and sol. Al: 0.001 to 0.3%, and one or more types of element selected from a group consisting of Mo, Ta, W and Re in a total amount of 0.5 to 7.0%, with the balance being Fe and impurities. An oxidized layer A includes a chemical composition containing, in mass%: Cr and Mn in a total amount of 20 to 45%, and one or more types of element selected from a group consisting of Mo, Ta, W and Re in a total amount of 0.5 to 10%.

IPC 8 full level

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