

t15_card_fil
 (TMdkxsn5FtWoBZsqazGzq4h8S7LrhKSBen6)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k3_card_fil : \iota \Rightarrow \iota$ be given. Let $m1_card_fil : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0 : \iota \Rightarrow o. \forall X1. \forall X2. (X2 \in ReplSep (toset \\ (\lambda X3 : \iota. m1_subset_1 X3 X1)) (\lambda X3 : \iota. X0 X3) (\lambda X3 : \iota. \\ X3))) \Rightarrow (X0 X2) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_card_fil X1 X0) \Rightarrow \\ ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\ X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (k3_card_fil X0 = ReplSep (toset \\ (\lambda X1 : \iota. m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0)))) \\ (\lambda X1 : \iota. m1_card_fil X1 X0) (\lambda X1 : \iota. X1)) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (X1 \in k3_card_fil X0) \Leftrightarrow \\ (m1_card_fil X1 X0)) \end{aligned}$$