Cr substitution causes the refinement of grains and can increase magnetic anisotropy and hard magnetic properties of Hf$_2$Co$_{11}$B alloy. Experimental analysis of Hf$_{2-x}$Cr$_x$Co$_{11}$B (0 ≤ x ≤ 2) melt-spun alloys was performed (x-ray diffraction, differential scanning calorimetry) and compared with the results of semi-empirical calculations (Miedema model). Amorphous ribbons were obtained for high Hf content (0 ≤ x ≤ 1) while for 1.5 ≤ x ≤ 2, formation of crystalline phases is reported. Moreover, Hf-rich alloys are characterized by higher thermal stability. Formation enthalpy of Hf$_2$Co$_{11}$B amorphous alloy is equal to -20.6 kJ/mol and along with other parameters indicate moderate glass forming ability (GFA). Similar atomic radii of Cr and Co and smaller interfacial enthalpy of Cr-Co than of Hf-Co pair, results in low GFA for the alloys with high Cr content.