Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

One-pot Synthesis of Self-healable and Recyclable Ionogels Based on Polyamidoamine (PAMAM) Dendrimers via Schiff Base Reaction

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Tab. S1 M_w and the number of Amino for different generation PAMAM

Dendrimer (Ethylenediamine core)	M_w (g/mol)	Amino
PAMAM G0	516	4
PAMAM G1	1429	8
PAMAM G2	3256	16
PAMAM G3	6908	32
PAMAM G4	14214	64
PAMAM G5	28824	128

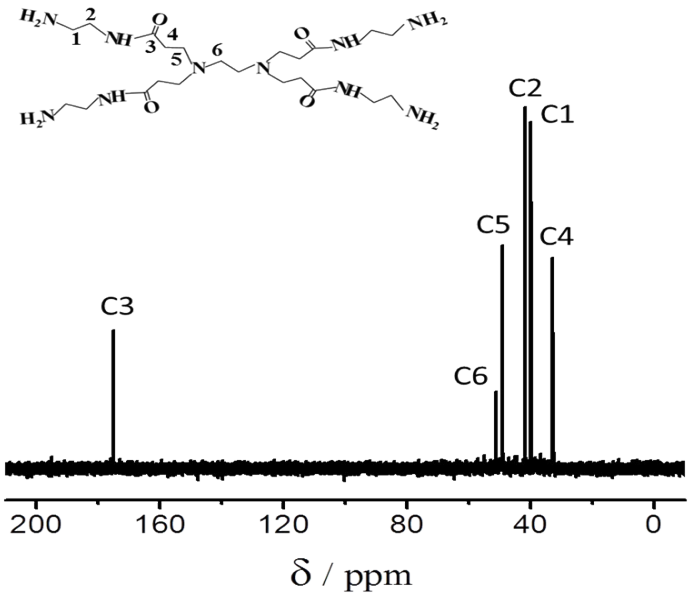

Fig. S1. ^{13}C NMR spectra of PAMAM G0

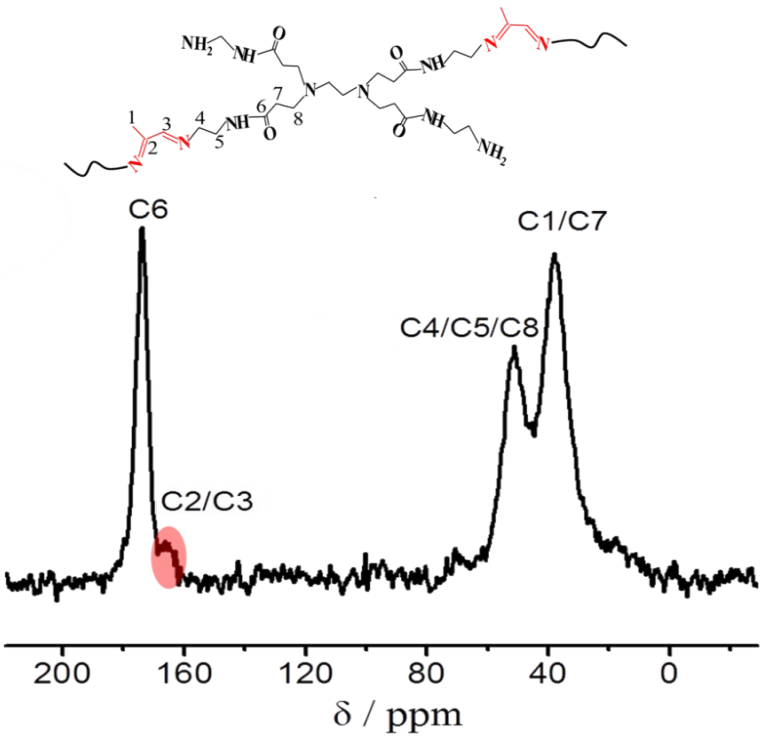

Fig. S2. Solid-state ^{13}C NMR spectra of ionogel (PAMAM G0)

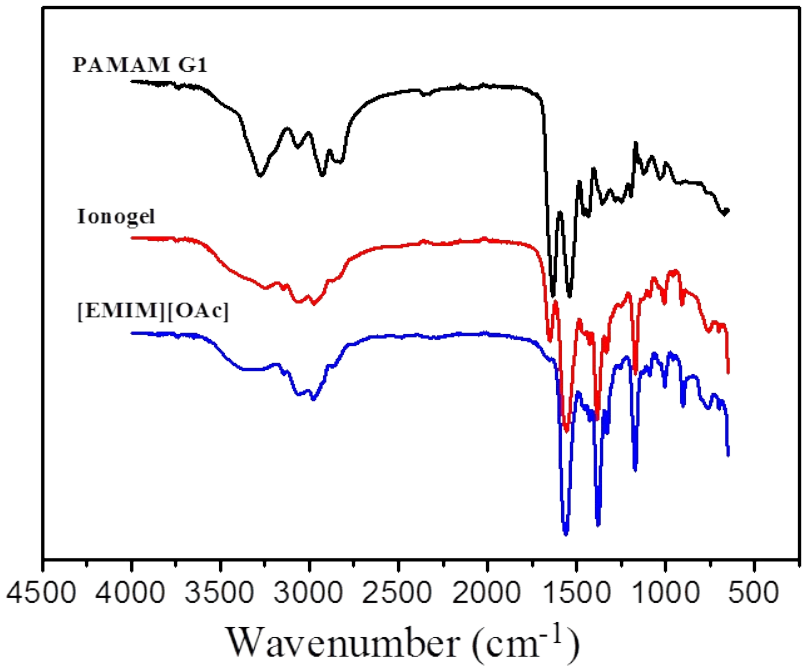

Fig. S3. FTIR spectras of PAMAM, neat ionic liquid, and Ionogel.

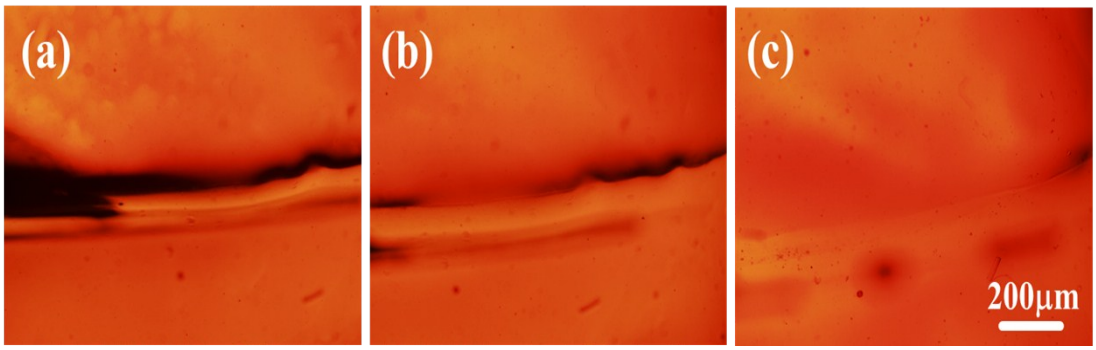

Fig. S4. Optical images of self-healing pocess: after knife-cut and free standing for (a) 0.1h, (b) 0.5h, and (c) 1h.

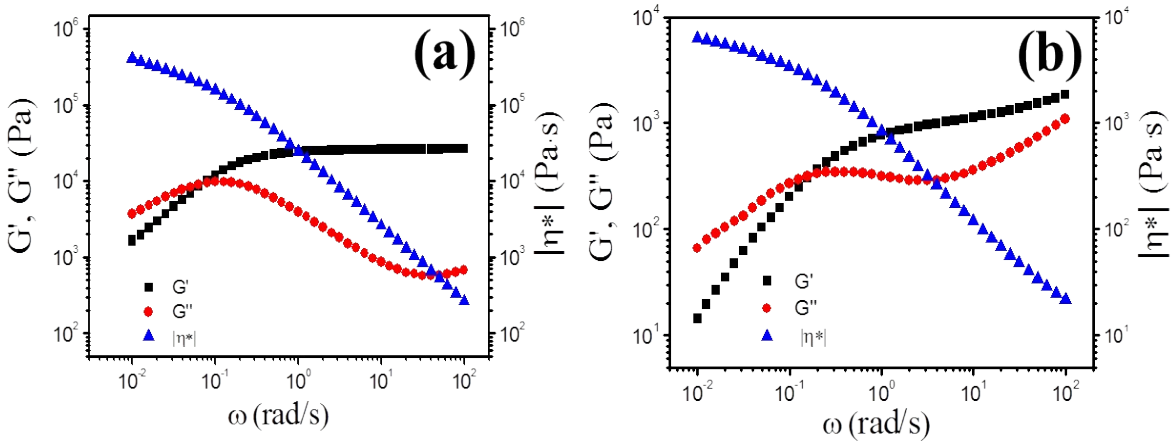

Fig. S5. Changes of G', G'', and $|\eta^*|$ as a function of ω, at 25 °C for 30% ionogel with different generation of PAMAM: (a) G1 and (b) G4.

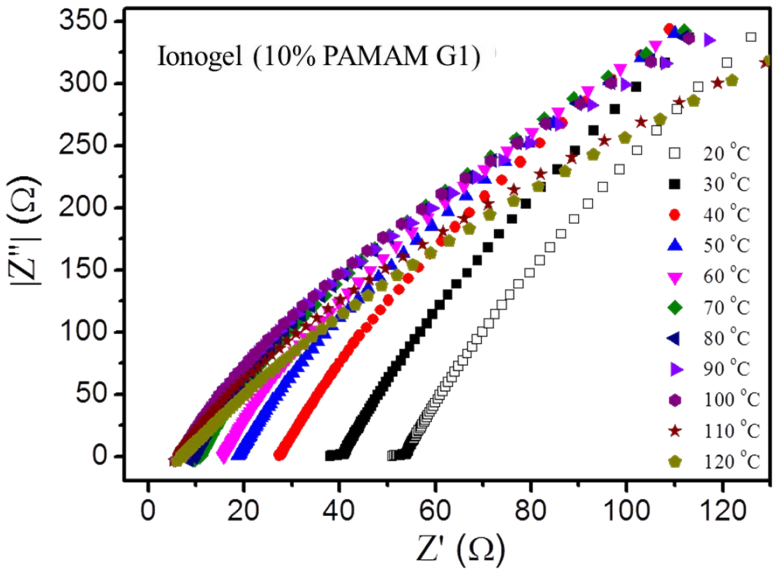

Fig. S6. The impedance plots for ionogel (10% PAMAM G1) at different temperature.