

Table 1 Basic parameters of sandpacks

Code	L/cm	D/cm	$\Phi /%$	$K_{rw}/10^{-3}\mu m^2$	$S_o /%$
1#	50	2.5	33.2	1695.6	65.4
2#	50	2.5	35.1	2532.4	69.8
3#	50	2.5	27.8	925.3	73.2

Table 3 Recipe of DCPM

$W_{AM}/W_{AMPS}/W_{HM}$	Monomers /%	Emulsifier /%	W_{S-80}/W_{OP-10}	V_{oil}/V_{water}	PEG-200 diacrylate/%	V-50 /%
20/5/0.1	20	6	6.5/1	1.5/1	1	1

Table 4 The effect of initiator on the polymerization

Initiator	Dosage	Reaction Temperature	The reaction phenomena
azodiisobutyronitrile (AIBN)	0.2%	65 °C	The reaction is very fast in about 5~10min, the reaction system is not stable and is easy to explosive polymerization
	0.4%		
	0.6%		
	0.8%		
2'-azobis(2-amidinopropane) dihydrochloride (V-50)	0.2%	50 °C	Un-react
	0.4%		The reaction occurred in 40min, the conversion can reach to more than 80%, uniform products
	0.6%		The reaction occurred in about 20~30min, the conversion can reach to more than 80%, uniform products
	0.8%		Explosive polymerization
redox system ($K_2S_2O_8/NaHSO_3$)	0.2%	40 °C	Un-react
	0.4%		The reaction occurred in about 8-9 hours
	0.6%		The reaction occurred in about 5-6 hours and the reaction system is not stable
	0.8%		Explosive polymerization