

Chapter 3 RESULTS

3.1 POROSITY RESULTS

Porosity and grain density of all salt types are summarized in Table 2. Porosity of sub-samples ranged between 0.005 and 0.33. The average grain density of granular salt using WIPP and AI salt obtained from the porosimeter method performed on 58 unique tests was 2.161 g/cc with a standard deviation of ± 0.009 g/cc. Grain density of BAMBUS samples determined from the porosimeter was comparatively greater than the other salt types; however it was consistent with the value of 2.187 g/cc reported by Bechthold et al. for salt from the Asse facility [3].

Table 2 Summary of porosity test.

Types of salt	Sample ID	Grain density from porosimeter (g/cc)	Sub-sample porosity		Porosity of central core
			Porosimeter	MV	
Laboratory consolidated salt	WP-HY-90-01	2.158	0.122	0.123	0.048
	WP-HY-90-02	2.160	0.035	0.036	0.015
	WP-HY-90-03	2.171	0.221	0.217	
	WP-HY-90-04	2.163	0.043	0.042	0.030
	WP-HY-90-07	2.163	0.019	0.017	0.014
	WP-HY-90-08	2.158	0.057	0.058	0.019
	WP-HY-90-09	2.170	0.328	0.253	
	WP-HY-175-01	2.150	0.062	0.066	0.047
	WP-HY-175-03	2.157	0.049	0.050	0.023
	WP-HY-175-04	2.164	0.045	0.043	0.022
	WP-HY-250-01	2.142	0.005	0.014	0.012
	WP-HY-250-02	2.167	0.018	0.014	
	AI-HY-250-01	2.164	0.027	0.025	
	AI-HY-250-02	2.161	0.012	0.011	
Polycrystalline salt	WP-DL-200	2.161	0.022	0.021	
	WP-DL-250	2.181	0.032	0.026	
In situ consolidated salt	BAMBUS-1-1.82	2.192	0.252	0.249	
	BAMBUS-1-2.77	2.181	0.209	0.211	
	BAMBUS-2	2.191	0.262	0.260	