DATA PENGUJIAN POROSITAS MATERIAL Al-CU-FA 700ºC

Material	Replikasi	Atas		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 5%	1	2,682	2,953	0,095
	2	2,685		
	3	2,675		
Rata-Rata =		2,680		

Material	Replikasi	Tengah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 5%	1	2,767	2,953	0,062
	2	2,770		
	3	2,767		
Rata-Rata =		2,768		

Material	Replikasi	Bawah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 5%	1	2,822	2,953	0,045
	2	2,826		
	3	2,811		
Rata-Rata =		2,819		

Material	Replikasi	Atas		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 10%	1	2,315	2,958	0,217
	2	2,313		
	3	2,319		
Rata-Rata =		2,316		

Material	Replikasi	Tengah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 10%	1	2,444	2,958	0,174
	2	2,445		
	3	2,442		
Rata-Rata =		2,444		

Material	Replikasi	Bawah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 10%	1	2,764	2,958	0,067
	2	2,745		
	3	2,773		
Rata-Rata =		2,760		

Material	Replikasi	Atas		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 15%	1	2,793	2,963	0,054
	2	2,810		
	3	2,807		
Rata-Rata =		2,803		

Material	Replikasi	Tengah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 15%	1	2,786	2,963	0,058
	2	2,799		
	3	2,789		
Rata-Rata =		2,791		

Material	Replikasi	Bawah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 15%	1	2,808	2,963	0,052
	2	2,810		
	3	2,809		
Rata-Rata =		2,809		

Material	Porositas rata-rata Al-Cu-Fa 700^{0}C (%)
Al-Cu-Fa 5%	0,067
Al-Cu-Fa 10%	0,152
Al-Cu-Fa 15%	0,054

Untuk menentukan porositas menggunakan persamaaan sebagai berikut:

$$Porosity = 1 - \frac{\rho_m}{\rho_{th}}$$

dimana:

ρ_m : densitas aktual (gram/cm^3)

ρ_{th} : densitas teoritis (gram/cm^3)

DATA PENGUJIAN POROSITAS MATERIAL Al-CU-FA 725ºC

Material	Replikasi	Atas		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 5%	1	2,770	2,953	0,060
	2	2,777		
	3	2,779		
Rata-Rata =		2,775		

Material	Replikasi	Tengah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 5%	1	2,791	2,953	0,055
	2	2,788		
	3	2,793		
Rata-Rata =		2,790		

Material	Replikasi	Bawah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 5%	1	2,814	2,953	0,049
	2	2,809		
	3	2,799		
Rata-Rata =		2,807		

Material	Replikasi	Atas		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 10%	1	2,767	2,958	0,065
	2	2,767		
	3	2,760		
Rata-Rata =		2,765		

Material	Replikasi	Tengah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 10%	1	2,729	2,958	0,069
	2	2,751		
	3	2,752		
Rata-Rata =		2,754		

Material	Replikasi	Bawah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 10%	1	2,792	2,958	0,054
	2	2,799		
	3	2,800		
Rata-Rata =		2,797		

Material	Replikasi	Atas		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 15%	1	2,792	2,963	0,060
	2	2,783		
	3	2,789		
Rata-Rata =		2,788		

Material	Replikasi	Tengah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 15%	1	2,803	2,963	0,053
	2	2,807		
	3	2,807		
Rata-Rata =		2,806		

Material	Replikasi	Bawah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 15%	1	2,821	2,963	0,050
	2	2,813		
	3	2,817		
Rata-Rata =		2,817		

Material	Porositas rata-rata Al-Cu-Fa 725^0C (%)
Al-Cu-Fa 5%	0,054
Al-Cu-Fa 10%	0,063
Al-Cu-Fa 15%	0,054

Untuk menentukan porositas menggunakan persamaaan sebagai berikut:

$$Porosity = 1 - \frac{\rho_m}{\rho_{th}}$$

dimana:

ρ_m : densitas aktual ($gram/cm^3$)

ρ_{th} : densitas teoritis ($gram/cm^3$)

DATA PENGUJIAN POROSITAS MATERIAL Al-CU-FA 750ºC

Material	Replikasi	Atas		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 5%	1	2,715	2,953	0,080
	2	2,711		
	3	2,721		
Rata-Rata =		2,716		

Material	Replikasi	Tengah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 5%	1	2,753	2,953	0,064
	2	2,774		
	3	2,765		
Rata-Rata =		2,764		

Material	Replikasi	Bawah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 5%	1	2,791	2,953	0,055
	2	2,796		
	3	2,786		
Rata-Rata =		2,791		

Material	Replikasi	Atas		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 10%	1	2,766	2,958	0,055
	2	2,762		
	3	2,763		
Rata-Rata =		2,764		

Material	Replikasi	Tengah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 10%	1	2,756	2,958	0,068
	2	2,761		
	3	2,752		
Rata-Rata =		2,756		

Material	Replikasi	Bawah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 10%	1	2,815	2,958	0,049
	2	2,811		
	3	2,812		
Rata-Rata =		2,813		

Material	Replikasi	Atas		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 15%	1	2,748	2,963	0,074
	2	2,741		
	3	2,746		
Rata-Rata =		2,745		

Material	Replikasi	Tengah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 15%	1	2,786	2,963	0,060
	2	2,789		
	3	2,781		
Rata-Rata =		2,785		

Material	Replikasi	Bawah		Porositas (%)
		Densitas Aktual (g/cm^3)	Densitas Teoritis (g/cm^3)	
Al-Cu-Fa 15%	1	2,804	2,963	0,055
	2	2,801		
	3	2,798		
Rata-Rata =		2,801		

Material	Porositas rata-rata Al-Cu-Fa 750^0C (%)
Al-Cu-Fa 5%	0,066
Al-Cu-Fa 10%	0,054
Al-Cu-Fa 15%	0,063

Untuk menentukan porositas menggunakan persamaaan sebagai berikut:

$$Porosity = 1 - \frac{\rho_m}{\rho_{th}}$$

dimana:

ρ_m : densitas aktual ($gram/cm^3$)

ρ_{th} : densitas teoritis ($gram/cm^3$)