

LAMPIRAN

1. Perhitungan Ketebalan Lapisan Elektroplating Khrom Spesimen 7

$$\text{Tebal lapisan (mikron)} = \frac{\text{Rapat arus (A/dm}^2\text{)} \times \text{Waktu plating (mnt)} \times \text{Berat atom (g/mol)} \times \text{Eff.} \times 6000000}{\text{Berat jenis (kg/m}^3\text{)} \times \text{valensi} \times 96500}$$

$$\text{Tebal lapisan (mikron)} = \frac{16 \text{ A/dm}^2 \times 5 \text{ mnt} \times 52 \text{ g/mol} \times 0,15 \times 6000000}{7194 \text{ kg/m}^3 \times 6 \times 96500}$$

$$\text{Tebal lapisan (mikron)} = 0,89 \text{ mikron}$$

Spesimen 8

$$\text{Tebal lapisan (mikron)} = \frac{\text{Rapat arus (A/dm}^2\text{)} \times \text{Waktu plating (mnt)} \times \text{Berat atom (g/mol)} \times \text{Eff.} \times 6000000}{\text{Berat jenis (kg/m}^3\text{)} \times \text{valensi} \times 96500}$$

$$\text{Tebal lapisan (mikron)} = \frac{16 \text{ A/dm}^2 \times 5 \text{ mnt} \times 52 \text{ g/mol} \times 0,15 \times 6000000}{7194 \text{ kg/m}^3 \times 6 \times 96500}$$

$$\text{Tebal lapisan (mikron)} = 0,89 \text{ mikron}$$

Spesimen 9

$$\text{Tebal lapisan (mikron)} = \frac{\text{Rapat arus (A/dm}^2\text{)} \times \text{Waktu plating (mnt)} \times \text{Berat atom (g/mol)} \times \text{Eff.} \times 6000000}{\text{Berat jenis (kg/m}^3\text{)} \times \text{valensi} \times 96500}$$

$$\text{Tebal lapisan (mikron)} = \frac{16 \text{ A/dm}^2 \times 4 \text{ mnt} \times 52 \text{ g/mol} \times 0,15 \times 6000000}{7194 \text{ kg/m}^3 \times 6 \times 96500}$$

$$\text{Tebal lapisan (mikron)} = 0,719 \text{ mikron}$$

Spesimen 10

$$\text{Tebal lapisan (mikron)} = \frac{\text{Rapat arus (A/dm}^2) \times \text{Waktu plating (mnt)} \times \text{Berat atom (g/mol)} \times \text{Eff.} \times 6000000}{\text{Berat jenis (kg/m}^3) \times \text{valensi} \times 96500}$$

$$\text{Tebal lapisan (mikron)} = \frac{16 \text{ A/dm}^2 \times 5 \text{ mnt} \times 52 \text{ g/mol} \times 0,15 \times 6000000}{7194 \text{ kg/m}^3 \times 6 \times 96500}$$

$$\text{Tebal lapisan (mikron)} = 0,89 \text{ mikron}$$

Spesimen 12

$$\text{Tebal lapisan (mikron)} = \frac{\text{Rapat arus (A/dm}^2) \times \text{Waktu plating (mnt)} \times \text{Berat atom (g/mol)} \times \text{Eff.} \times 6000000}{\text{Berat jenis (kg/m}^3) \times \text{valensi} \times 96500}$$

$$\text{Tebal lapisan (mikron)} = \frac{16 \text{ A/dm}^2 \times 3 \text{ mnt} \times 52 \text{ g/mol} \times 0,15 \times 6000000}{7194 \text{ kg/m}^3 \times 6 \times 96500}$$

$$\text{Tebal lapisan (mikron)} = 0,539 \text{ mikron}$$

2. Perhitungan Waktu Pelapisan Elektroplating Khrom

Spesimen 7

$$\text{Waktu plating (menit)} = \frac{\text{Tebal lapisan (mikron)} \times \text{Berat jenis (kg/m}^3) \times \text{Valensi} \times 96500}{\text{Rapat arus (A/dm}^2) \times \text{Berat atom (gram/mol)} \times \text{Efisiensi} \times 6000000}$$

$$\text{Waktu plating (menit)} = \frac{0,89 \text{ mikron} \times 7194 \text{ kg/m}^3 \times 6 \times 96500}{16 \text{ A/dm}^2 \times 52 \text{ gram/mol} \times 0,15 \times 6000000}$$

$$\text{Waktu plating (menit)} = 4,9 \text{ menit}$$

Spesimen 8

$$\text{Waktu plating (menit)} = \frac{\text{Tebal lapisan (mikron)} \times \text{Berat jenis (kg/m}^3) \times \text{Valensi} \times 96500}{\text{Rapat arus (A/dm}^2) \times \text{Berat atom (gram/mol)} \times \text{Efisiensi} \times 6000000}$$

$$\text{Waktu plating (menit)} = \frac{0,89 \text{ mikron} \times 7194 \text{ kg/m}^3 \times 6 \times 96500}{16 \text{ A/dm}^2 \times 52 \text{ gram/mol} \times 0,15 \times 6000000}$$

$$\text{Waktu plating (menit)} = 4,9 \text{ menit}$$

Spesimen 9

$$\text{Waktu plating (menit)} = \frac{\text{Tebal lapisan (mikron)} \times \text{Berat jenis (kg/m}^3) \times \text{Valensi} \times 96500}{\text{Rapat arus (A/dm}^2) \times \text{Berat atom (gram/mol)} \times \text{Efisiensi} \times 6000000}$$

$$\text{Waktu plating (menit)} = \frac{0,719 \text{ mikron} \times 7194 \text{ kg/m}^3 \times 6 \times 96500}{16 \text{ A/dm}^2 \times 52 \text{ gram/mol} \times 0,15 \times 6000000}$$

$$\text{Waktu plating (menit)} = 3,9 \text{ menit}$$

Spesimen 10

$$\text{Waktu plating (menit)} = \frac{\text{Tebal lapisan (mikron)} \times \text{Berat jenis (kg/m}^3) \times \text{Valensi} \times 96500}{\text{Rapat arus (A/dm}^2) \times \text{Berat atom (gram/mol)} \times \text{Efisiensi} \times 6000000}$$

$$\text{Waktu plating (menit)} = \frac{0,89 \text{ mikron} \times 7194 \text{ kg/m}^3 \times 6 \times 96500}{16 \text{ A/dm}^2 \times 52 \text{ gram/mol} \times 0,15 \times 6000000}$$

$$\text{Waktu plating (menit)} = 4,9 \text{ menit}$$

Spesimen 12

$$\text{Waktu plating (menit)} = \frac{\text{Tebal lapisan (mikron)} \times \text{Berat jenis (kg/m}^3) \times \text{Valensi} \times 96500}{\text{Rapat arus (A/dm}^2) \times \text{Berat atom (gram/mol)} \times \text{Efisiensi} \times 6000000}$$

$$\text{Waktu plating (menit)} = \frac{0,539 \text{ mikron} \times 7194 \text{ kg/m}^3 \times 6 \times 96500}{16 \text{ A/dm}^2 \times 52 \text{ gram/mol} \times 0,15 \times 6000000}$$

$$\text{Waktu plating (menit)} = 2,9 \text{ menit}$$