

# CVD processes in Centrotherm tubes

Part\_I\_v1

# Polysilicon tube : TUBE 1\_1

| Recipes   | Poly                       | aSi                          |
|-----------|----------------------------|------------------------------|
| Parameter | Thickness                  | Thickness                    |
| Min       | 100 A                      | 10 A                         |
| Max       | 30000 or 3.0 $\mu\text{m}$ | 10000 A or 1.0 $\mu\text{m}$ |

Polysilicon 8000A

**Poly\_8000** ← Thickness (A)

or **Poly\_0.8**

↑  
Type of layer

↑  
Thickness ( $\mu\text{m}$ )

Type of layer

Amorphous silicon 4000A

**aSi\_4000**

↑  
Type of layer

↑  
Thickness (A)

# Nitride tube : TUBE 1\_2

| Recipes     | Nit                         | Nit2x                       | NitxN                        | Isnit                        |
|-------------|-----------------------------|-----------------------------|------------------------------|------------------------------|
| Parameter 1 | Thickness                   | Thickness                   | Thickness                    | Thickness                    |
| Min         | 10 A                        | 10 A                        | 10 A                         | 10 A                         |
| Max         | 8000 A or 0.8 $\mu\text{m}$ | 8000 A or 0.8 $\mu\text{m}$ | 12000 A or 1.2 $\mu\text{m}$ | 20000 A or 2.0 $\mu\text{m}$ |
| Parameter 2 | -                           | -                           | Number of layers             | -                            |
| Max value   | -                           | 2                           | 16                           | -                            |

Nitride 8000A

**Nit\_8000** ← Thickness (A)

or

**Nit\_0.8**

↑ Thickness ( $\mu\text{m}$ )

↑ Type of layer

Nitride 8800A deposited in **11 layers**

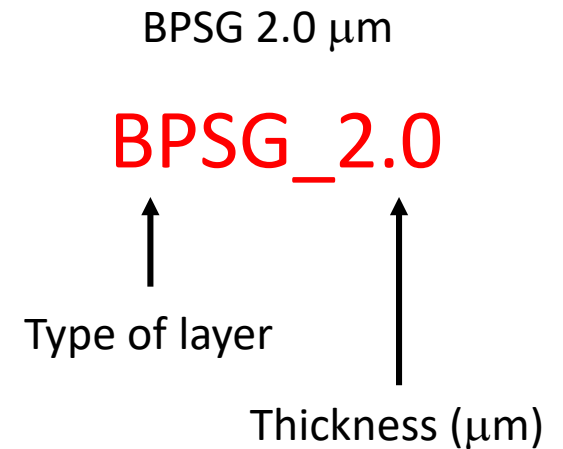
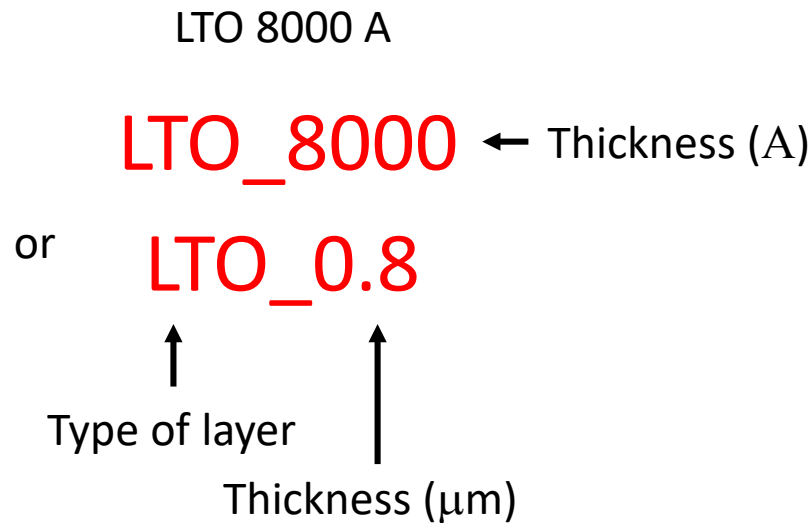
**Nit\_800x11**

↑ Type of layer    ↑ **Number of layers**

↑ Thickness of **one** layer (A)

# LTO tube : TUBE 3\_1

| Recipes   | LTO                          | BSG                          | PSG                          | BPSG                         |
|-----------|------------------------------|------------------------------|------------------------------|------------------------------|
| Parameter | Thickness                    | Thickness                    | Thickness                    | Thickness                    |
| Min       | 50 A                         | 50 A                         | 50 A                         | 50 A                         |
| Max       | 30000 A or 3.0 $\mu\text{m}$ | 30000 A or 3.0 $\mu\text{m}$ | 30000 A or 3.0 $\mu\text{m}$ | 30000 A or 3.0 $\mu\text{m}$ |



# TEOS tube : TUBE 3\_2

| Recipes   | TEOS                         |
|-----------|------------------------------|
| Parameter | Thickness                    |
| Min       | 10 A                         |
| Max       | 20000 A or 2.0 $\mu\text{m}$ |

TEOS 8000 A

