

Aufgabe 9.23: Inventory valuation and cost rates

KRONSBURG Ltd. is a production firm. The company produces paper cups for cafeterias. The cups consist of paper and glue. On top there is a plastic lid. At the beginning of the accounting period there are 4,000 lids on stock which cost 0.10 EUR/unit (net amount).

On 1.01.20X6, KRONSBURG Ltd. buys 10,000 lids at 0.09 EUR/unit (net amount) and paper for 12,000 cups at 3,600.00 EUR (gross amount). The company buys 10 litre of glue at 120.00 EUR (gross amount). One litre of glue is enough to make 2,500 cups.

During the accounting period of 20X4 KRONSBURG produces 8,000 cups. At the beginning of the accounting period there were 1,000 cups on stock which have a value of 600.00 EUR.

Besides the direct costs there are 2,000.00 EUR operative expenses which are to be considered being manufacturing cost. No VAT is to be considered for the overheads. The application of these overheads is at full.

KRONSBURG Ltd. puts the production amount of 8,000 on stock and later sells 8,500 cups for 7,000.00 EUR net selling price.

All expenses are paid on cash. KRONSBURG Ltd. runs a perpetual inventory system. The cost formula *average method* applies. Calculate unit cost accurate to 4 digits after the decimal point!

Admin costs equal to 400.00 EUR (no VAT for admin costs to be considered).

Required: Prepare the relevant accounts and an income statement along the cost of sales format and the nature of expense method. How much are the total of inventories as displayed on the face of the balance sheet? How much is the balancing figure in the VAT account?

Solution

(1) Purchase of lids on 1.01.20X6. The amount equals to $10,000 \times 0.09 = 900.00$ EUR net amount.

DR Purchase	900.00 EUR
DR VAT	180.00 EUR
CR Cash/Bank	1,080.00 EUR

(2) Purchase of paper on 1.01.20X6. The net amount equals to $3,600/120\% = 3,000.00$ EUR.

DR Purchase	3.000.00 EUR
DR VAT	600.00 EUR
CR Cash/Bank	3,600.00 EUR

(3) Putting lids on stock

DR Inventory - Lids	900.00 EUR
CR Purchase	900.00 EUR

(4) Putting paper on stock

DR Inventory - Paper	3,000.00 EUR
CR Purchase	3,000.00 EUR

(5) Purchase of glue on 1.01.20X6. The net amount equals to $120 / 120\% = 100.00$ EUR.

DR Purchase	100.00 EUR
DR VAT	20.00 EUR
CR Cash/Bank	120.00 EUR

(6) Putting glue on stock.

DR Inventory - glue	100.00 EUR
CR Purchase	100.00 EUR

(7a) Production of 8,000 cups which requires paper, glue and lids. The EUR-amount of paper equals to $(3,000/12,000) \times 8,000 = 2,000.00$ EUR.

DR WIP	2,000.00 EUR
CR Inventory - Paper	2,000.00 EUR

(7b) Material expenses for glue equals to $8,000 \times 1/2,500 \times 100/10 = 32.00$ EUR.

DR WIP	32.00 EUR
CR Inventory - Glue	32.00 EUR

(7c) Material expenses for lids require the average method. One lid's cost equal to $(4,000 \times 0.10 + 10,000 \times 0.09) = 0.0929$ EUR. The material expenses for 8,000 lids equal to $8,000 \times 0.0929 = 743.20$ EUR.

DR WIP	743.20 EUR
CR Inventory - Lids	743.20 EUR

(8) There are no further direct costs. The operating costs are manufacturing related and apply fully. We first put the costs into a Manufacturing Overhead account and apply then the overheads.

DR Operating Expenses	2,000.00 EUR
CR Cash/Bank	2,000.00 EUR

(9) Recording operating expenses as overheads.

DR Manufacturing Overheads	2,000.00 EUR
CR Operating Expenses	2,000.00 EUR

(10) Transfer of overheads to the WIP account. Application of overheads.

DR WIP	2,000.00 EUR
CR Manufacturing Overheads	2,000.00 EUR

(11) The sales equals to 7,000.00 EUR net amount. The gross value is $7,000 \times 120\% = 8,400.00$ EUR.

DR Cash/Bank	8,400.00 EUR
CR VAT	1,400.00 EUR
CR Revenue	7,000.00 EUR

(12) Cost for administration: 400.00 EUR (given)

DR Administration	400.00 EUR
CR Cash/Bank	400.00 EUR

The cost of sales require to determine the average cost of finished goods that get sold. The unit cost of manufacturing equals to $(600 + 4,775.20)/9,000 = 0.5972$ EUR/unit. The cost of sales are $8,500 \times 0.5972 = 5,076.20$ EUR.

Observe the accounts for the profit calculation.

D		Cash/Bank	C	D		Inventory - lids	C
(11)	8,400.00	(1)	1,080.00	OV	400.00	(7c)	743.20
		(2)	3,600.00	(3)	900.00	c/d	
		(5)	120.00		<u>1,300.00</u>		<u>743.20</u>
		(8)	2,000.00				
		(12)	400.00				
		c/d	<u>1,200.00</u>				
	<u>8,400.00</u>		<u>8,400.00</u>				
b/d	1,200.00						

D		Purchase	C	D		VAT	C
(1)	900.00	(3)	900.00	(1)	180.00	(11)	1,400.00
(2)	3,000.00	(4)	3,000.00	(2)	600.00		
(5)	100.00	(6)	100.00	(5)	20.00		
	<u>4,000.00</u>		<u>4,000.00</u>	c/d	<u>600.00</u>		
					<u>1,400.00</u>		<u>1,400.00</u>
						b/d	<u>600.00</u>

Exhibit 1: Accounts

D Inventory - paper C	
(4)	3,000.00
	<u>3,000.00</u>
b/d	1,000.00

D Inventory - glue C	
(6)	100.00
	<u>100.00</u>
b/d	68.00

D FG Inventory - cups C	
OV	600.00
WIP	4,775.20
	<u>5,375.20</u>
b/d	299.00

D WIP cups 20X6 C	
(7a)	2,000.00
(7b)	32.00
(7c)	743.20
(10)	2,000.00
	<u>4,775.20</u>

D Operating expenses C	
(8)	2,000.00
	<u>2,000.00</u>

D Manufacturing Overheads C	
(9)	2,000.00
	<u>2,000.00</u>

D Cost of sales COS C	
COS	5,076.20
	<u>5,076.20</u>

D Sales C	
P&L	7,000.00
	<u>7,000.00</u>

D Profit and Loss P&L C	
COS	5,076.20
Admin	400.00
c/d	1,523.80
	<u>7,000.00</u>
ITL	457.14
R/E	1,066.66
	<u>1,523.80</u>

D Administration C	
(12)	400.00
b/d	400.00
	<u>400.00</u>

D Retained earnings R/E C	
c/d	1,066.66
	<u>1,066.66</u>

D Income tax liabilities ITL C	
c/d	457.14
	<u>457.14</u>

Exhibit 1: Accounts (continued)

**Kronsberg Ltd.'s
STATEMENT of COMPREHENSIVE INCOME
for the year ended 31.12.20X6**

	[EUR]
Revenue	7,000.00
Other income	7,000.00
Cost of Sales	5,076.20
Labour	0.00
Depreciation	0.00
Other expenses	400.00
Earnings before int and taxes (EBIT)	1,523.80
Interest	0.00
Earnings before taxes (EBT)	1,523.80
Income tax expenses	457.14
Deferred taxes	1,066.66
Earnings after taxes (EAT)	1,066.66

Exhibit 2: Income statement

In order to calculate the income statement along the nature of expense format a trading account is in order.

D Trading account T/A C				D Profit and Loss P&L C			
OV FG	600.00	Sales	7,000.00	Op exp	2,000.00	T/A	3,923.80
OV lids	400.00	cl. Lids	556.80	Admin	400.00		
Purch	900.00	cl. Paper	1,000.00	EBT c/d	1,523.80		
Purch	3,000.00	cl. Glue	68.00		3,923.80		3,923.80
Purch	100.00	cl. FG	299.00	ITL	457.14	b/d	1,523.80
GP c/d	3,923.80			R/E	1,066.66		
	8,923.80		8,923.80		9,371.40		9,371.40
P&L	3,923.80	b/d	3,923.80				

Exhibit 3: Trading Account

The changes in inventory with regard to finished goods equal to $299 - 600 = \mathbf{301.00 \text{ EUR}}$. Material expenses equal to $400 + 900 + 3,000 + 100 - 556.80 - 1,000 - 68 = \mathbf{2,775.20 \text{ EUR}}$.

Observe the income statement below:

**Kronsberg Ltd.'s
STATEMENT of COMPREHENSIVE INCOME
for the year ended 31.12.20X6**

	[EUR]
Revenue	7,000.00
Changes in inventory of FG	<u>(301.00)</u>
	6,699.00
Materials	2,775.20
Labour	0.00
Depreciation	0.00
Other expenses	<u>2,400.00</u>
Earnings before int and taxes (EBIT)	1,523.80
Interest	<u>0.00</u>
Earnings before taxes (EBT)	1,523.80
Income tax expenses	457.14
Deferred taxes	<u></u>
Earnings after taxes (EAT)	1,066.66

Exhibit 4: Income statement along the nature of expense method