

Task IM-9.43a: Inventory valuation

DERNE Ltd. is a company based on shares. DERNE Ltd. was established in 20X3 by a share issue of 20,000 shares at 5.00 EUR face value. DERNE Ltd. is a small production firm making different sorts of candles like white long ones for candle holders and flavoured ones in a glass. All candles are made from the same kind of wax to which flavour ingredients are added or not.

In 20X7 DERNE Ltd. displays the following items on its opening balance sheet as at 1.01.20X7: PPE: 80,000.00 EUR resulting from an amount of 160,000.00 EUR in the PPE account and 80,000.00 EUR in the Accumulated Depreciation account. The property, plant and equipment result from the heat treatment devices and the small manufacturing property. Depreciation is completely manufacturing overheads.

The amount in the cash/bank account equals to 9,800.00 EUR.

The candle production process contains a wax heating, a wick intruding and a cooling step. DERNE Ltd. runs a job order costing and a perpetual inventory system. The inventory system works based on a cost formula first-in-first-out for wax, wicks and flavour.

At the beginning of the accounting period 20X7 the wax on stock is worth 10,000.00 EUR. The value of wicks equals to 200.00 EUR. DERNE Ltd. purchases in 20X7 wax for 33,000.00 EUR and wicks for 500.00 EUR. Note, the new wax is 10% more expensive than the previous (= on stock at the beginning of the accounting period) one. Furthermore, DERNE Ltd. buys flavour to the tune of 1,900.00 EUR.

During 20X7 DERNE Ltd. produced 100,000 candles by 10 job orders. The amount of wax and the amount of wicks for every candle is always the same. The last 2 orders are for flavoured candles and use up 30% of the flavour. All job orders are finished in 20X7. Accordingly, there is no closing stock with regard to work in progress.

The labour for the manufacturing amounts to 120,000.00 EUR and is equally spread over the accounting period. Labour is paid for the month it is for (no prepayments). Regard labour as overheads.

DERNE Ltd. delivers the candles to a deco/furniture store directly. The net selling price is 230% of the cost of manufacturing.

For administration DERNE Ltd. recorded 60,000.00 EUR in 20X7. Administration is not considered being manufacturing related. The application of overheads is to the full extend.

Assume all business activities of DERNE Ltd. being on cash.

The stock count reveals that 23,000 candles are on stock at the end of the accounting period. 3,000 thereof are flavoured candles. Apply first-in-first-out formula for finished goods as well.

The Raw Material account contains wax for 2,200.00 EUR and wicks for 100.00 EUR. There is no left over with regard to flavours.

Required: Prepare financial statements for DERNE Ltd. as at 31.12.20X7 which contain a statement of financial position and a statement of comprehensive income. Ignore VAT.

Solution

- (1) Depreciation
- (2) Purchase of wax at 33,000.00 EUR
- (3) Purchase of wicks at 500.00 EUR
- (4) Purchase of flavour at 1,900.00 EUR
- (5...7) Transfer of materials into the stock accounts

- (8) Transfer wax to WIP-1...10 accounts: The amount is based on an equivalent unit: $10,000 + 33,000/1.1 - 2,200/1.1 = \mathbf{38,000 \text{ wax units}}$. WIP-1, WIP-2 get wax for 3,800.00 EUR of wax. WIP-3 gets $2,400 + 1,400 \times 1.1 = \mathbf{3,940.00 \text{ EUR}}$ of wax. All other WIP accounts receive $3,800 \times 1.1 = \mathbf{4,180.00 \text{ EUR}}$. The total wax consumption is $2 \times 3,800 + 3,940 + 7 \times 4,180 = \mathbf{40,800.00 \text{ EUR}}$
- (9) Transfer wicks to the WIP accounts. All WIP accounts get the same value of wicks which is $(200 + 500 - 100)/10 = \mathbf{60.00 \text{ EUR}}$.
- (10) The amount of flavour is used up by WIP-9 and WIP-10 account to an extent of 30%. The amount is $30\% \times 1,900/2 = \mathbf{285.00 \text{ EUR}}$.
- (11) Transfer depreciation to MOH account.
- (12) Payment of labour: 120,000.00 EUR
- (13) Transfer labour to MOH account
- (14) Application of overheads to the WIP accounts.
- (15) Closing all WIP accounts off to FG
- (16) Recording the cost of sales, non-flavoured: $2 \times 17,860 + 18,000 + 3 \times 18,240 = 108,440.00 \text{ EUR}$. The closing stock amounts to $2 \times 18,240 = \mathbf{36,480.00 \text{ EUR}}$.
- (17) Recording cost of sales for flavoured candles: $18,525 + 0.7 \times 18,525 = \mathbf{31,492.50.00 \text{ EUR}}$.
- (18) Transfer COS to the P&L account
- (19) Recording administration expenses
- (20) Recording sales: $230\% \times 139,932.50 = \mathbf{321,844.75 \text{ EUR}}$
- (21) Transferring sales to P&L
- (22) Transferring administration expenses to P&L

PPE				Acc depr			
D			C	D			C
OV	160,000.00	c/d	160,000.00			OV	80,000.00
b/d	160,000.00			c/d	100,000.00	(1)	20,000.00
					100,000.00		100,000.00
						b/d	100,000.00
Inventory RM wax				Inventory wicks			
D			C	D			C
OV	10,000.00	(81)	3,800.00	OV	200.00	(91)	60.00
(5)	33,000.00		...	(6)	500.00		...
		(83)	3,940.00			c/d	100.00
		(84)	4,180.00		700.00		700.00
			...	b/d	100.00		
		(89)	4,180.00				
			...				
		c/d	2,200.00				
	43,000.00		43,000.00				
b/d	2,200.00						
Inventory RM flavour				Purchase			
D			C	D			C
(7)	1,900.00	(109)	285.00	(2)	33,000.00	(5)	33,000.00
			...	(3)	500.00	(6)	500.00
		c/d	1,330.00	(4)	1,900.00	(7)	1,900.00
	1,900.00		1,900.00		35,400.00		35,400.00
b/d	1,330.00						
Cash/Bank				Issued capital			
D			C	D			C
OV	9,800.00	(2)	33,000.00	c/d	100,000.00	OV	100,000.00
(20)	321,844.75	(3)	500.00			b/d	100,000.00
		(4)	1,900.00				
		(12)	120,000.00				
		(19)	60,000.00				
		c/d	116,244.75				
	331,644.75		331,644.75				
b/d	116,244.75						
Depreciation				WIP-1,2			
D			C	D			C
(1)	20,000.00	(11)	20,000.00	(81)	3,800.00	(151)	17,860.00
				(91)	60.00		
				(141)	14,000.00		
					17,860.00		17,860.00
WIP-3				WIP-4,5,6,7,8			
D			C	D			C
(83)	3,940.00	(153)	18,000.00	(84)	4,180.00	(154)	18,240.00
(93)	60.00			(94)	60.00		
(143)	14,000.00			(144)	14,000.00		
	18,000.00		18,000.00		18,240.00		18,240.00

Exhibit 1: Accounts

D		WIP-9,10 (flavoured)	C
(89)	4,180.00	(159)	18,525.00
(99)	60.00		
(109)	285.00		
(149)	14,000.00		
	<u>18,525.00</u>		<u>18,525.00</u>

D		Manufacturing overheads (MOH)	C
(11)	20,000.00	(141)	14,000.00
(13)	120,000.00		...
	<u>140,000.00</u>		<u>140,000.00</u>

D		Labour	C
(12)	<u>120,000.00</u>	(13)	<u>120,000.00</u>

D		Finished goods – flavoured	C
(159)	18,525.00	(17)	31,492.50
	...	c/d	5,557.50
	<u>37,050.00</u>		<u>37,050.00</u>
b/d	5,557.50		

D		Finished goods – non-flavoured	C
(151)	17,860.00	(16)	108,440.00
...		c/d	36,480.00
(153)	18,000.00		
(154)	18,240.00		
	...		
	<u>144,920.00</u>		<u>144,920.00</u>
b/d	36,480.00		

D		Cost of sales	C
(16)	108,440.00	(18)	139,932.50
(17)	31,492.50		
	<u>139,932.50</u>		<u>139,932.50</u>

D		Profit & Loss	C
(18)	139,932.50	(21)	321,844.75
(22)	60,000.00		
EBT c/d	121,912.25		
	<u>321,844.75</u>		<u>321,844.75</u>
IT	36,573.68	b/d	121,912.25
R/E	85,338.58		
	<u>121,912.25</u>		<u>123,381.90</u>

D		Admin	C
(19)	<u>60,000.00</u>	(22)	<u>60,000.00</u>

D		Sales	C
(21)	<u>321,844.75</u>	(20)	<u>321,844.75</u>

D		Income tax liabilities	C
c/d	<u>36,573.68</u>	P&L	36,573.68
		b/d	36,573.68

D		R/E	C
c/d	<u>85,338.58</u>	P&L	<u>85,338.58</u>
		b/d	85,338.58

Exhibit 1: Accounts (continued)

**Derne Ltd.'s
STATEMENT of FINANCIAL POSITION**

A	as at 31.12.20X7		C, L
<i>Non-current assets</i>	[EUR]	<i>Owners' capital</i>	[EUR]
P, P, E	60,000.00	Share capital	100,000.00
Intangibles		Reserves	
Financial assets		R/E	85,338.58
<i>Current assets</i>		<i>Liabilities</i>	
Inventory	45,667.50	Interest bear liab	
A/R		A/P	
Prepaid expenses		Provisions	
Cash/Bank	116,244.75	Tax liabilities	36,573.68
	221,912.25		221,912.26

Exhibit 2: Balance sheet

**Derne Ltd.'s
STATEMENT of COMPREHENSIVE INCOME
for the year ended 31.12.20X7**

	[EUR]
Revenue	321,844.75
Other income	
	321,844.75
COS	139,932.50
Other expenses	60,000.00
Earnings before int and taxes (EBIT)	121,912.25
Interest	0.00
Earnings before taxes (EBT)	121,912.25
Income tax expenses	36,573.68
Deferred taxes	
Earnings after taxes (EAT)	85,338.58

Exhibit 3: Income statement