

c. Transit Inventory

At the end of one month, the Transit Inventory is the global quantity already shipped (or planned to be shipped) and not yet received.

Transit Inventory is the sum of :

- + "Intransit stock" : firm in SAP, already shipped and not yet received. Receiving date is taken in the PO in SAP
- + Firm PO from SAP planned as shipped and not yet received. Shipping and receiving date are from the PO in SAP
- + Projected resupply = not firm, planned as shipped and not yet received. Receiving date is defined by the system depending on the requirements. Shipping date depends on the receiving date and the distribution lead time.

/!\ Difference between Intransit and Transit inventory : The "In Transit inventory" is the quantity already shipped and to be received during the month seen in the datafield, whereas the Transit inventory is total quantity still not received for the full horizon

For instance, for a PO of 10000 shipped in October and to be received in December, if we look at the material@receiving site :

| | Oct | Nov | Dec |
|-------------------|-------|-------|-------|
| Intransit | 0 | 0 | 10000 |
| Transit inventory | 10000 | 10000 | 0 |

In this example,

> the firm PO in SAP all are set with a 2 month lead time :

| Site | Source horizon | M10-2023 | M11-2023 | M12-2023 | M01-2024 | M02-2024 | M03-2024 |
|-------|----------------|----------|----------|----------|----------|----------|----------|
| 8712R | M12-2023 | | | | | 16 000 | |
| | M11-2023 | | | | 16 000 | | |
| | M09-2023 | | 16 000 | | | | |

The calculated transfers are set with a 2 months Distribution lead time :

| Site | Planned delivery time SAP [Standard Day] | Distribution lead time [Month] | Distribution lead time override [Month] | Distribution multiple [KG] |
|------------|--|--------------------------------|---|----------------------------|
| 8345R 7774 | | | 1 | 1 |
| 8356R 7723 | | | 3 | 3 |
| 8373R 7752 | | | 3 | 3 |
| 8513R 7786 | | | | 0 |
| 8518R 7786 | | | | 0 |
| 8521R 7008 | | | 3 | 3 |
| 8536R 7008 | | | 3 | 3 |
| 8615R 7734 | | | 1 | 1 |
| 8712R 7008 | 97 | 3 | 3 | 16 000 |

| Material: 144215R CYBREAK 625 1000KG 2205LB IBC | | | SKU: 144215R@8517R CYBREAK 625 1000KG 2205LB IBC 7786 / Toll Contract Welshpool | | | | | | | | | | | | |
|---|--------------|---------------------------------|---|----------|----------|----------|----------|------------|----------|----------|----------|----------|----------|--|--|
| | | | =2023 | | | | | =2024 | | | | | | | |
| Data fields | Type of flow | Site | M08-2023 | M09-2023 | M10-2023 | M11-2023 | M12-2023 | Total 2023 | M01-2024 | M02-2024 | M03-2024 | M04-2024 | M05-2024 | | |
| Beginning inventory [KG] | | | 58 000 | 58 000 | 67 000 | 69 000 | 71 000 | 71 000 | 57 000 | 59 000 | 61 000 | 47 000 | 49 000 | | |
| Actual Shipped (ETD) [KG] | EXTERNAL | 2061328R SOUTH32 WORSLEY | 21 000 | | | | | 21 000 | | | | | | | |
| Total Shipping Requirement [KG] | EXTERNAL | 2061328R SOUTH32 WORSLEY | | 7 000 | 14 000 | 14 000 | 14 000 | 49 000 | 14 000 | 14 000 | 14 000 | 14 000 | 14 000 | | |
| Gross requirements [KG] | | | | 7 000 | 14 000 | 14 000 | 14 000 | 49 000 | 14 000 | 14 000 | 14 000 | 14 000 | 14 000 | | |
| Intransit inventory [KG] | INTER SIT | 8712R 7008 / Sunland Greenville | | 16 000 | | | | 32 000 | | | | | | | |
| Firm resupply SAP [KG] | INTER SIT | 8712R 7008 / Sunland Greenville | | | | 16 000 | | 16 000 | 15 000 | 16 000 | | | | | |
| Projected resupply plan [KG] | INTER SIT | 8712R 7008 / Sunland Greenville | | | | | | | | | | 16 000 | 16 000 | | |
| Closing Inventory [KG] | | | 58 000 | 67 000 | 69 000 | 71 000 | 57 000 | 57 000 | 59 000 | 61 000 | 47 000 | 49 000 | 51 000 | | |
| Closing Inventory coverage [Standard Day] | | | 141.9 | 145.8 | 149.8 | 154.2 | 123.2 | 123.2 | 127.4 | 133.1 | 102.1 | 107.5 | 111.3 | | |
| Target stock [KG] | | | 29 867 | 36 581 | 36 581 | 36 690 | 37 032 | 37 032 | 37 333 | 36 581 | 36 867 | 36 581 | 36 581 | | |
| Safety stock final [KG] | | | 29 867 | 36 581 | 36 581 | 36 690 | 37 032 | 37 032 | 37 333 | 36 581 | 36 867 | 36 581 | 36 581 | | |
| Safety stock days SAP [Standard Day] | | | 80.00 | 80.00 | 80.00 | 80.00 | 80.00 | 80.00 | 80.00 | 80.00 | 80.00 | 80.00 | 80.00 | | |

| TS - Distribution datas additional Transit Inventory | | | Horizon | | | | | | | | | | | | |
|--|-------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 144215R@8517R | | | M08-2023 | M09-2023 | M10-2023 | M11-2023 | M12-2023 | M01-2024 | M02-2024 | M03-2024 | M04-2024 | M05-2024 | M06-2024 | M07-2024 | M08-2024 |
| Distribution in process [KG] | 8712R | Site | | | | | 16 000 | 32 000 | 32 000 | 32 000 | 32 000 | 48 000 | 32 000 | 16 000 | |
| Distribution in process from ITI SAP [KG] | 8712R | 32 000 | 16 000 | | | | | | | | | | | | |
| Distribution in process from Firm SAP [KG] | 8712R | 32 000 | 16 000 | 16 000 | 16 000 | 32 000 | 16 000 | | | | | | | | |
| Transit Inventory [KG] | 8712R | 32 000 | 32 000 | 16 000 | 16 000 | 32 000 | 32 000 | 32 000 | 32 000 | 32 000 | 32 000 | 48 000 | 32 000 | 16 000 | |

> Case 1 above in blue : end of Sept 2023, the distribution in process from firm SAP is the PO to be received in Nov, which is set with a shipping date in Sept in SAP (2 month lead time).

> Case 2 above in green : end of Dec 2023, the distribution in process from firm SAP is the sum of POs to be received in Jan+Feb, which are set with a shipping date in Nov and Dec in SAP (2 month lead time).

> Case 3 above in Red : end of Feb, no more firm PO to be received. The transit quantity is the sum of PO to be received in March+April+May, because their lead time = distribution lead time defined in Dynasys (DIP-PP Settings Tab)

> Case 4 (below) : in Jan 24, there is 1 firm PO to be received in Feb + 1 transfer planned by Dynasys to be shipped in Jan (blue) and received in April (red).

| Material: 144215R CYBREAK 625 1000KG 2205LB IBC | | | SKU: 144215R@8517R CYBREAK 625 1000KG 2205LB IBC 7786 / Toll Contract Welshpool | | | | | | | | | | | | |
|---|--------------|---------------------------------|---|----------|----------|----------|----------|------------|----------|----------|----------|----------|----------|--|--|
| | | | =2023 | | | | | =2024 | | | | | | | |
| Data fields | Type of flow | Site | M08-2023 | M09-2023 | M10-2023 | M11-2023 | M12-2023 | Total 2023 | M01-2024 | M02-2024 | M03-2024 | M04-2024 | M05-2024 | | |
| Beginning inventory [KG] | | | 58 000 | 58 000 | 67 000 | 69 000 | 71 000 | 71 000 | 57 000 | 59 000 | 61 000 | 47 000 | 49 000 | | |
| Actual Shipped (ETD) [KG] | EXTERNAL | 2061328R SOUTH32 WORSLEY | 21 000 | | | | | 21 000 | | | | | | | |
| Total Shipping Requirement [KG] | EXTERNAL | 2061328R SOUTH32 WORSLEY | | 7 000 | 14 000 | 14 000 | 14 000 | 49 000 | 14 000 | 14 000 | 14 000 | 14 000 | 14 000 | | |
| Gross requirements [KG] | | | | 7 000 | 14 000 | 14 000 | 14 000 | 49 000 | 14 000 | 14 000 | 14 000 | 14 000 | 14 000 | | |
| Intransit inventory [KG] | INTER SIT | 8712R 7008 / Sunland Greenville | | 16 000 | 16 000 | | | 32 000 | | | | | | | |
| Firm resupply SAP [KG] | INTER SIT | 8712R 7008 / Sunland Greenville | | | | 16 000 | | 16 000 | 16 000 | 16 000 | | | | | |
| Projected resupply plan [KG] | INTER SIT | 8712R 7008 / Sunland Greenville | | | | | | | | | | 16 000 | 16 000 | | |
| Closing Inventory [KG] | | | 58 000 | 67 000 | 69 000 | 71 000 | 57 000 | 57 000 | 59 000 | 61 000 | 47 000 | 49 000 | 51 000 | | |
| Closing Inventory coverage [Standard Day] | | | 141.9 | 145.8 | 149.8 | 154.2 | 123.2 | 123.2 | 127.4 | 133.1 | 102.1 | 107.5 | 111.3 | | |
| Target stock [KG] | | | 29 867 | 36 581 | 36 581 | 36 690 | 37 032 | 37 032 | 37 333 | 36 581 | 36 867 | 36 581 | 36 581 | | |
| Safety stock final [KG] | | | 29 867 | 36 581 | 36 581 | 36 690 | 37 032 | 37 032 | 37 333 | 36 581 | 36 867 | 36 581 | 36 581 | | |
| Safety stock days SAP [Standard Day] | | | 80.00 | 80.00 | 80.00 | 80.00 | 80.00 | 80.00 | 80.00 | 80.00 | 80.00 | 80.00 | 80.00 | | |

| TS - Distribution datas additional Transit Inventory | | | Horizon | | | | | | | | | | | | |
|--|-------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 144215R@8517R | | | M08-2023 | M09-2023 | M10-2023 | M11-2023 | M12-2023 | M01-2024 | M02-2024 | M03-2024 | M04-2024 | M05-2024 | M06-2024 | M07-2024 | M08-2024 |
| Distribution in process [KG] | 8712R | Site | | | | | 16 000 | 32 000 | 32 000 | 32 000 | 32 000 | 48 000 | 32 000 | 16 000 | |
| Distribution in process from ITI SAP [KG] | 8712R | 32 000 | 16 000 | | | | | | | | | | | | |
| Distribution in process from Firm SAP [KG] | 8712R | 32 000 | 16 000 | 16 000 | 16 000 | 32 000 | 16 000 | | | | | | | | |
| Transit Inventory [KG] | 8712R | 32 000 | 32 000 | 16 000 | 16 000 | 32 000 | 32 000 | 32 000 | 32 000 | 32 000 | 32 000 | 48 000 | 32 000 | 16 000 | |