

# **C2-A:**

## **Control on Usage and Cost**

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- ① Purpose of “**Usage/Cost Control**”
- ② Rules on Usage
- ③ Inbound and Outbound record
- ④ Grasp Usage
- ⑤ Grasp Cost per unit
- ⑥ Activity to Reduce Usage



# ① Purpose of “Usage/Cost Control”

## Purpose

To **understand the usage** and **purchasing cost** of each cost item and improve.

To **have control** over proper usage of **Proportional indirect materials** and **Non-proportional indirect materials**.

## ② Rules on Usage

# RULES

# 1

Must have rules on usage of proportional indirect material and non-proportional indirect material.

- Does not have to be a procedure, a clear format for recording is fine.

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Document Name : Indirect Material Management Regulation  
文書名 : 間接資材管理規程

Document No. : REG0801-031-02  
文書番号 : REG0801-031-02

### Indirect Material Management Regulation

Established : August 19, 2015  
制定 : 2015年8月19日

Revised : July 05, 2017  
改訂 : 2017年7月05日

Effectivity : February 15, 2018  
施行 : 2018年2月15日

**MASTER COPY**  
Date : February 15, 2018  
Sign : [Signature]  
Production Engineering

Approved 承認	Checked 確認	Prepared 起草
 Approved FEB 13 2018 General Manager General Manager	 Checked FEB 13 2018 PE Section Manager PE Section Manager	 Prepared PE Engineer PE Engineer

BROTHER INDUSTRIES (PHILIPPINES), INC. REC0402-007-01

Refer to:  
REG0801-031-02 Indirect Material Management Regulation.pdf

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Document Name : Sub-Material Management Standard for Certain Chemical Substances  
文書名 : 副資材の特定化学物質管理標準

Document No. : REG0801-036-01  
文書番号 : REG0801-036-01

### Sub-Material Management Standard for Certain Chemical Substances

副資材の特定化学物質管理標準

Established : August 19, 2013  
制定 : 2013年8月19日

Revised : December 2, 2022  
改訂 : 2022年12月2日

Effectivity : January 9, 2023  
施行 : 2023年1月9日

**MASTER COPY**  
Date : January 9, 2023  
Sign : [Signature]  
Production Engineering

Approved 承認	Checked 確認	Prepared 起草
 Approved JAN 06 2023 General Manager General Manager	 Checked JAN 06 2023 Section Manager Section Manager	 Prepared Section Supervisor Section Supervisor

BROTHER INDUSTRIES (PHILIPPINES), INC. REC0402-007-01

Refer to:  
REG0801-036-01 Sub-Material Management Standard for Certain Chemical Substances.pdf

## ③ Inbound and Outbound Record

# 2

Must have an **In** and **Out record** of Proportional indirect material and Non-Proportional indirect material.

In and Out of materials are **fully recorded** without omission.

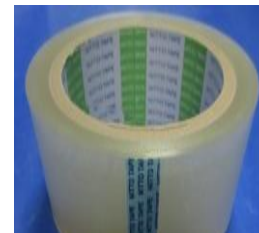
**Indirect Materials** – materials used in production process except for direct parts, finished goods, and work-in-process.

**Proportional Indirect Materials** – materials included in the finished goods/product upon ship out. These have fixed usage rate that any changes in production plan will also have direct impact on the total usage.

Other reference:

<http://133.151.246.16/technicalstandards/StdProc/Docs/en/P-PR-003/P-PR-003.pdf>

### Sample Proportional Indirect Materials



Nitto Tape



Solder Wire



Holding Tape



Grease



Label

# ③ Inbound and Outbound Record

For Proportional Indirect Materials, refer to **P-PR-003**:

Standard No.	P-PR-003
Rev.	1.01
Authorized By:	
S. Kuwabara Executive Officer	
<b><u>Standard for Intermediate Materials for Production Quantity Comparison</u></b>	
Established: December 26, 2012 Effective: February 9, 2021 Checked: February 26, 2021	
Brother Industries, Ltd.	
Reference(s):	
Internal Regulation	R3201 Regulations for Control of Part and Material Procurement
Technical Standard	T0-016 Auxiliary Material Codes Setting Standard

## Specific Examples of Intermediate Materials for Production Quantity Comparison

Category	Application	Specific Examples
1. Auxiliary materials	Lubricant	BGMU, PG661, BG-10KS Hanarl (FZ-85, BDX-313A, etc.)
	Adhesive	UV adhesive, Super X Silver pastes for heads, solder bump material
	Circuit board assembly	Solder, jumper wire
	Labeling	Unit barcodes, stickers, serial number labels, case markings (attached to products, units or cartons)
	Printing	Ink ribbons (including printing on model faceplates for handled parts), heat stamps, ink cartridges, toner units, pens (if ink will be applied to the product when shipped)
	Packaging	Scotch tape, holding tape, cellophane tape, PP bands, staples
2. Indirect materials used for each unit produced	Products, unit inspection	Printing paper, canvas (for anchoring inspection) Inspection fluid, toner powder, ink fluid, thermal ribbons, thermal paper, checklists
	Labeling	Unit barcode, stickers (for affixing to checklists)
	Label printing	Ink ribbons, heat stamps, ink cartridges, toner units
	Tape	Temporary fastening tape, staples
	Product washing	Alcohol, static remover
3. Indirect materials used for a predetermined quantity of units produced	Circuit boards	Masking tape
	Product washing	Kimwipes, MK cloth, cotton swab, dusting sheets, gloves, fingerstall, garbage bags
	Documentary performance inspection	Charts (TC, CTC)
	Packaging	Packaging vinyl, PP rope (PP cord)

Link: <http://133.151.246.16/technicalstandards/StdProc/Docs/en/P-PR-003/P-PR-003.pdf>

### ③ Inbound and Outbound Record

#### Non-Proportional Indirect Materials

- Materials not included in the finished goods/product upon ship out but necessary during production.

#### Non-Proportional Indirect Materials Sample



Gloves



Wiper



Syringe



Needles



# ④ Grasp Cost per unit

#4

Must **grasp cost** of proportional indirect material per unit.

Grasp proportional indirect material cost per unit at least on a **3-month basis**.

Item of expenditure	Proportional type	Materials division	Materials name	Materials cost / One month	Purchase unit	Price(Purchase unit)	Price(Basic unit)	Consumption / One production
Indirect materials - Proportional(2480000)	1	Production	⓪sub material Industrial adhesives TB1530P	911	150 150g / 1pc	30.000 USD	0.000 USD/€	0.132 €
Indirect materials - Proportional(2480000)	1	Production	⓪sub material Adhesive for electrical components AX-128 (SX720W#)	174	333 333ml / 1pc	30.450 USD	0.091 USD/ml	0.055 ml
Indirect materials - Proportional(2480000)	1	Production	⓪sub material Flux EC-19S-8	1	1.4 1.4kg / 1pc	11.650 USD	8.321 USD/kg	0.000 kg
Indirect materials - Proportional(2480000)	1	Production	⓪sub material UV curable resins TB3033B/333ml	1600	333 333ml / 1pc	130.000 USD	0.390 USD/ml	0.119 ml
Indirect materials - Proportional(2480000)	1	Production	⓪Proportional Indirect Material E-Mask 6030 20mm * 200m	134	200 200m / roll	12.840 USD	0.064 USD/m	0.061 m
Indirect materials - Proportional(2480000)	1	Production	⓪sub material Epoxy adhesive E-90FL	961	400 400ml / 1pc	37.300 USD	0.095 USD/ml	0.234 ml
Indirect materials - Proportional(2480000)	1	Production	⓪Proportional Indirect Material SHIPPING LIQUID TC1105	1241	1 €	0.030 USD	0.030 USD/g	1.199 €
Indirect materials - Proportional(2480000)	1	Production	⓪Proportional Indirect Material BK INK LK5305001	6	1 #	0.021 USD	0.021 USD/g	0.00852 g
Indirect materials - Proportional(2480000)	1	Production	⓪Proportional Indirect Material C INK LK5306001	7	1 #	0.036 USD	0.036 USD/g	0.00536 g
Indirect materials - Proportional(2480000)	1	Production	⓪Proportional Indirect Material M INK LK5307001	8	1 #	0.044 USD	0.044 USD/g	0.00498 g
Indirect materials - Proportional(2480000)	1	Production	⓪Proportional Indirect Material Y INK LK5308001	7	1 #	0.040 USD	0.040 USD/g	0.0052 g
Indirect materials - Proportional(2480000)	1	Production	⓪Proportional Indirect Material Printer paper 4200 20LB 8.5x11	62	8000 8000sheets / 1carton	45.000 USD	0.009 USD/sheet	0.2 sheets

Materials name
Industrial adhesives TB1530P
Adhesive for electrical components AX-128 (SX720W#)
Flux EC-19S-8
UV curable resins TB3033B/333ml
E-Mask 6030 20mm * 200m
Epoxy adhesive E-90FL
SHIPPING LIQUID TC1105
BK INK LK5305001
C INK LK5306001
M INK LK5307001
Y INK LK5308001

Proportional Materials List Sample



## ⑤ Grasp Usage

# # 3

## Grasp usage of Proportional Indirect Material and Non-Proportional Indirect Material.

NO.	ITEM	DETAILS	Q1			Q2		
			Apr	May	Jun	Jul	Aug	Sep
DPP 4-1	Indirect materials-Proportional Cost Reduction	Actual Output QTY (MH data)	191,795	210,141	226,506	213,575	203,643	199,953
		Estimated Total Cost	37,250	37,099	52,959	49,058	47,334	38,809
		Actual Total Cost (FI)	49,007	42,646	48,223	42,290	36,890	42,530
		Estimated Unit Cost	0.1942	0.1765	0.2338	0.2297	0.2324	0.19409201
		Actual Unit Cost	0.2555	0.2029	0.2129	0.1980	0.1811	0.21269863
		Monthly actual (%)	-31.56%	-14.95%	8.94%	13.80%	22.06%	-9.59%
		Estimated Unit Cost (cumm)	0.1942	0.1942	0.1942	0.1942	0.1942	0.1942
		Actual Unit Cost (cumm)	0.2555	0.2555	0.2555	0.2555	0.2555	0.2555
		Cumulative actual (%)	-31.56%	-23.27%	-9.87%	-3.29%	2.08%	0.35%

Included in Department Policy

Grasp that usage of proportional indirect material is appropriate for production increase and decrease.

If not appropriate, must be able to explain the reason for the variance.

**Appropriate Range**

- means "variance rate".  
Variance rate depends on the factory's decision.

### # 5

**Conduct activity to reduce usage** of Proportional Indirect Material and Non-Proportional Indirect Material.

- ❖ Reduction activity is carried out.
- ❖ Implement to other sections if effective.



# Sample Reduction Activity

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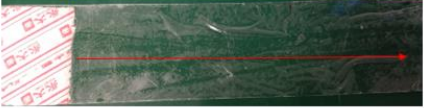
## DPP 4-1] Reduction of Product Unit Cost

### Indirect Material Cost Reduction


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at your side

**ACTIVITY:** Monitoring of Excess tape left on core ( Auto Carton)  
Identifying Muda in Barcode ribbon

**Muda** Different length of excess tapes




Result : (April) 0.2231 meters is excess.




used in manual taping


Identifying Muda in Barcode Ribbon



IM CODE	IM NAME	Actual	Forecast
IM0100155	BARCODE RIBBON BK1W	8.4	2.3



IM0100155 Barcode Ribbon BK1W  
COST PER PC: \$ 9.00



Check Average qty used in rework

**Next Activities:**

1. Checking the average qty of Tape used in Rework .
2. Checking the actual consumption of barcode ribbon used .

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TAPE CASSETE

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## DPP 4-1 生産比例間材費削減

### Indirect materials-Proportional Cost Reduction

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**Reason why achieved:**


- Decrease in usage of Threebond & Solder bar as a result of continuous implementation of previous FY improvement activity.

ITEM	STD USAGE	ACT. USAGE	VARIANCE
TB3065E	0.00014	0.00011	↓ 0.00003
Solder bar	0.00051	0.00002	↓ 0.00049

**FY2020 Improvement Activity:**


1. Usage of taper nozzle with 0.6 mm diameter

**BEFORE**



Use original jet  
or tip as exit  
point of adhesive  
Diameter: 1 mm


**AFTER**



Use taper  
nozzle as exit  
point of adhesive  
Diameter: 0.6mm


2. Change the method of conducting proportional inventory

**BEFORE**



Count only remaining  
solder bar in BM  
cabinet


**AFTER**




1. Check the actual site  
and confirm if there's still  
remaining solder bar  
2. Actual site EOH = EOH  
in cabinet

**FY2021 Improvement Activity:**

- Change of FLUX



➔



**Status:**  
ON-GOING  
COORDINATION  
WITH BIL

Usage: For excellent solderability of parts

**CURRENT:**

ITEM CODE	IM0100001
DESCRIPTION	TAMURA SOLDERITE
SPECIFICATION	EC-19S-8
PRICE	9.83 USD / L

**PROPOSAL:**

ITEM CODE	IM0206639
DESCRIPTION	POST FLUX
SPECIFICATION	WHS-003C
PRICE	7.14 USD / L

**EFFECT: ↓ 2.69 USD/L**  
Ave. production monthly usage: 1 L

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P-TOUCH

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