

2021 4

2021 5 11

2021 5 11

-

/

1

1

2

3

3.1

3.1.1

Z_1, Z_2, Z_3, \dots

1

2

3.1.2

PPT 5

3.1.3

23

3.2

3.2.1

3.2.2

3.2.3

20cm× 20cm× 20cm

3.2.4

10 mW

20 W

1

2

/

3.2.5

3.3

3.3.1

4

6cm

2

2

2

1

3.3.2

ATAGO

PAL-HIKARi

Brix

0.1% Brix

12.3% Brix

12.3

7

1

3.3.3

4

2

3

3

2

3

1

6

1

4

4.1

0.01

$s = \frac{a^2+b^2+c^2+d^2+e^2+f^2}{6}$

a=

$\frac{A'-A}{A} \quad b = \frac{B'-B}{B} \quad \dots \quad f = \frac{F'-F}{F}$

A B ...

F 6

A' B' ... F' 6

4.2

4.3

4.4

4.5

4.6

4.7

4.8

4.9

4.10

4.11

2

1

2

3

3.1

3.1.1

Z_1, Z_2, Z_3, \dots

1

2

3.1.2

PPT 5

3.1.3

23

3.2

3.2.1

3.2.2

1/2

1

4

3.2.2.1

5 cm

185 cm×45 cm

40 cm×40 cm

60 cm×40 cm

40 cm×40 cm

40 cm×40 cm

1cm

50 cm

40 cm ×10 cm

4

4

50 cm

1

2

500

2

/

3.2.2.2

cm 5cm

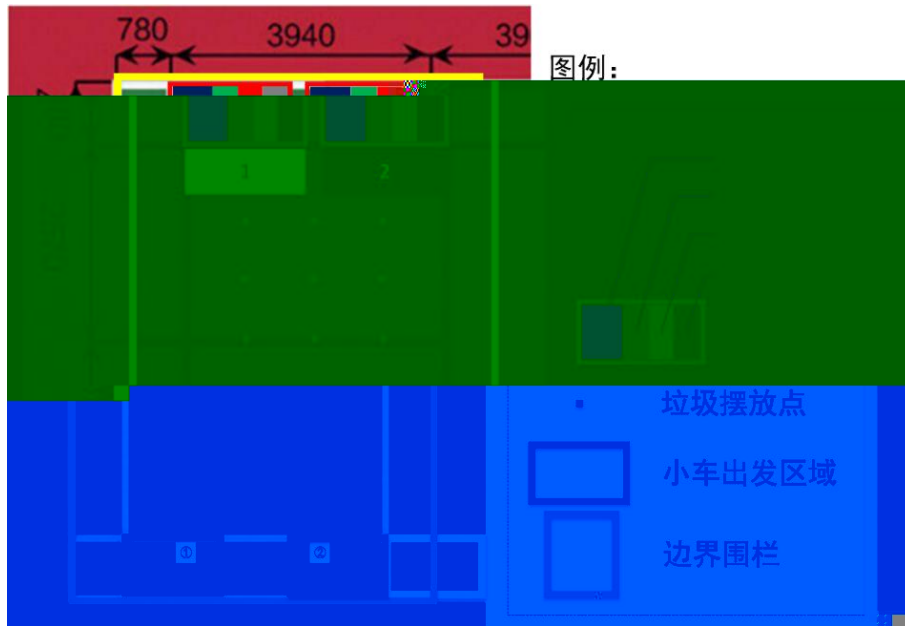
120 cm×50

“ ” “ ”

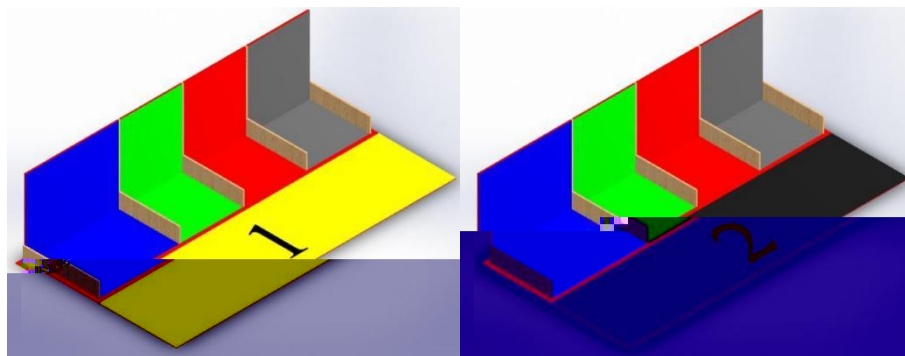
3.2.2.3

75cm

3.2.2.4



1



a b

2 a 1 b 2

3.2.3

3.2.3.1

A4

5

7

330 mL~380 mL

200 mL~250 mL

3 cm×3

/

cm

A4

5 cm

3.2.3.2

15

7

A4

1

3

3.2.3.3

3

1

5

1

1

7		
A4		



3

3.2.3.4

1

1 cm×1 cm

5

80 cm

3

12

120 cm

2

3.2.3.5

5

1

1

3.2.4

25 cm×35 cm

/

	30 cm		60 cm
		7 cm×4 cm	
3.2.5			
4			
4.1			
		1	4
4.2			3
		3	5
	5		4.5 8
4.3			
			1/2
4.4			
	“ ”		“ ”
		5	
4.5			
1			N
		M	M/N
	M		3
2			
3			
4			
		10	10
	3		
5			
	10		
6			
			10
7	3		

8

5

1

4

4.6

4.6.1

1

2

3

1

4

5

4.6.2

10

1

2

1/2

3

4