

2021 4

2021 5 11

---

2021 5 11

-

/

1

1

2

3

3.1

3.1.1

$Z_1, Z_2, Z_3,$

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=

$\frac{A-A}{A} b =$

$\frac{-B}{B}$

$f = \frac{F-F}{F}$

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

$Z_1, Z_2, Z_3$

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

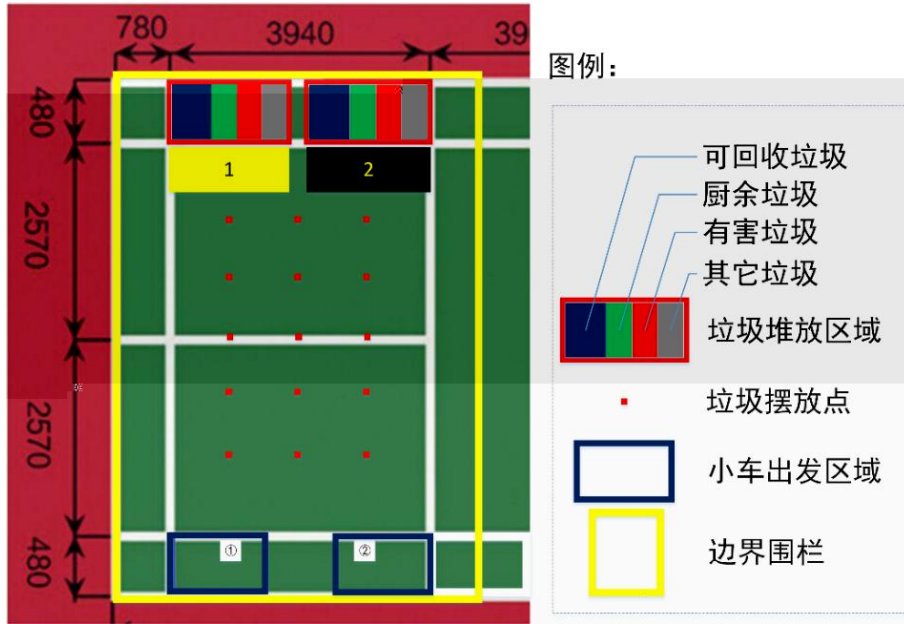
120 cm×50

cm 5cm

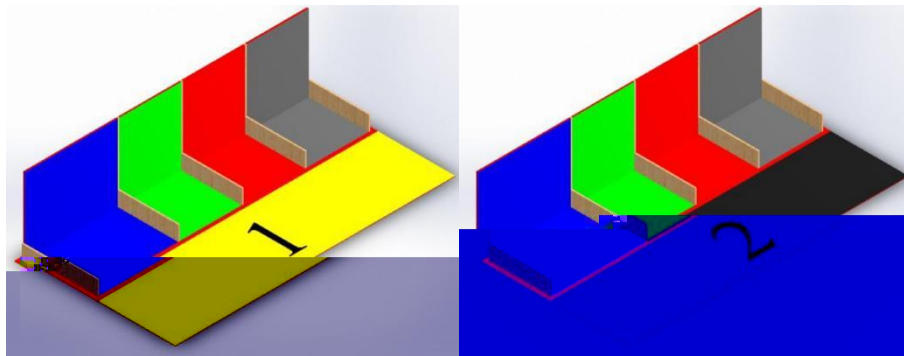
3.2.2.3

75cm

3.2.2.4



1



a b

2 a 1 b 2

3.2.3

3.2.3.1

5

7

A4

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

2

12

120 cm

3.2.3.5

5

1

1

3.2.4

25 cm×35 cm

/



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