

25 2017 2 20
 23 2018 2 30
 30-60 7

1 1

1.1

1-2

3

5

5

1

1

1-2

2

2

2

1

1.1

/ / /

5%

40%

8%

50%

15%

1.2

200um

3kW

200 m

400mm

× 400mm

100 m

200

1.3

5
3

5 GB 5 30

5 GB 3

1 3

5

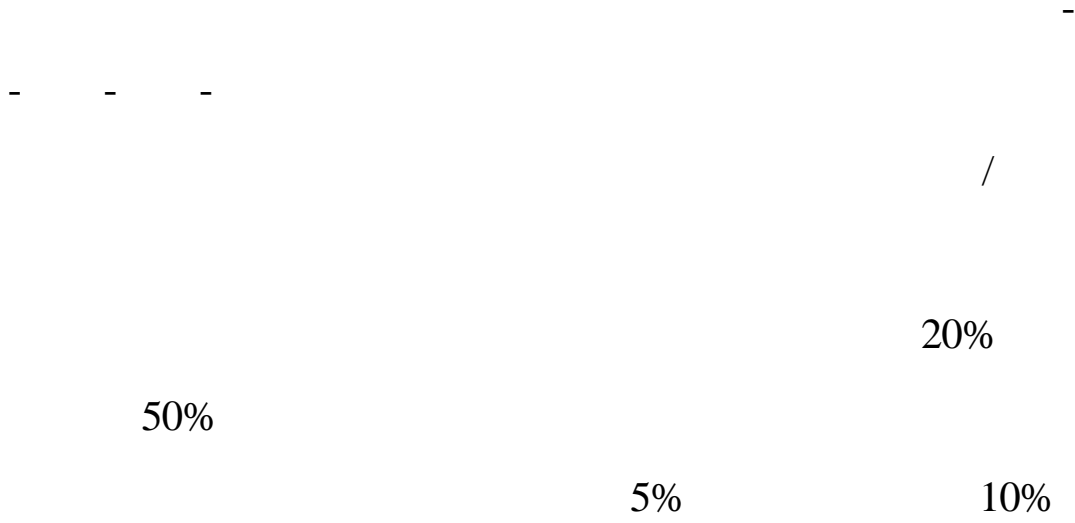
1.4

3D

300× 300

2000

1.13



1.14

30% 30% 20%

50%

1.15

50% 50%

5

4m

1.16

	1500	15MPa	
100mm		0.2%	100mm
	0.2mm		
		50%	5

1.17

20% 4-5 80% 50%

100

1000
50%
10%
1~2
3D
1.19
3D
3D
3D

/

2.3

- -

2
20 10 m
1%
2.5
2
0.2 m 20cm/s
0.2 m
2.6
IC

IC

2

2

5000mm

2000mm

8

50%

95%

API 1104

20

2.9

25 m-800 m

1 m

20 1

20