

## BPA RED

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- Gravity **14.2 BLG**
- ABV ---
- IBU **25**
- SRM **12.6**
- Style **Belgian Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **6.5 %/h**
- Boil size **23 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.1 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.9 liter(s)**

### Steps

- Temp **66 C**, Time **1 min**
- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **2 min**

### Mash step by step

- Heat up **15 liter(s)** of strike water to **70C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **1 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **23 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Karmel 600	0.05 kg (1%)	68 %	600
Grain	Pale Ale	3 kg (61.9%)	80 %	4
Grain	Pilzniejszy	0.8 kg (16.5%)	81 %	4
Grain	Weyermann - Melanoiden Malt	0.2 kg (4.1%)	81 %	80
Grain	Melanoiden Malt	0.8 kg (16.5%)	80 %	39

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	5 g	80 min	4.5 %
Boil	Challenger	4 g	80 min	7 %
Boil	Brewers Gold	4 g	80 min	7.6 %
Boil	Kent Goldings	4 g	80 min	5.5 %
Boil	połączone reszta	17 g	10 min	6 %
Boil	Magnum	5 g	80 min	13.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
T-58	Ale	Dry	11.5 g	fermentis