

## # 4 RED

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **33**
- SRM **13.4**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **25.9 liter(s)**
- Total mash volume **33.3 liter(s)**

### Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **25.9 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (54.1%)	79 %	5
Grain	Strzegom przenieczny	1 kg (13.5%)	82 %	4
Grain	strzegom red ale 70 EBC	1.5 kg (20.3%)	75 %	70
Grain	płatki jęczmienne	0.4 kg (5.4%)	--- %	4
Grain	Strzegom Karmel 150	0.5 kg (6.8%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	11.8 %
Boil	Lublin (Lubelski)	10 g	15 min	6 %
Boil	Lublin (Lubelski)	15 g	0 min	6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	---

### Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc T	0.5 g	Boil	10 min