

## w18

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **17**
- SRM **30.4**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **24.8 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.4 liter(s)**

### Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **26.4 liter(s)**

### Steps

- Temp **69 C**, Time **60 min**

### Mash step by step

- Heat up **19.8 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **31.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (65.8%)	80 %	5
Grain	Weyermann - Carapils	0.1 kg (1.3%)	78 %	4
Grain	Carared	0.2 kg (2.6%)	75 %	39
Grain	Jęczmień palony	0.3 kg (3.9%)	55 %	985
Grain	Strzegom Czekoladowy ciemny	0.2 kg (2.6%)	68 %	1200
Grain	Strzegom Czekoladowy jasny	0.4 kg (5.3%)	68 %	400
Grain	Płatki owsiane	0.4 kg (5.3%)	60 %	3
Sugar	Milk Sugar (Lactose)	1 kg (13.2%)	1 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	60 min	9.4 %
Boil	Lublin (Lubelski)	10 g	60 min	6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Fermentis