

## w19

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **22**
- SRM **9.5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **19.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.6 liter(s)**

### Mash information

- Mash efficiency **76 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **22.7 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**

### Mash step by step

- Heat up **17.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **24.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.6 kg (71.3%)	80 %	5
Grain	Strzegom Monachijski typ I	1 kg (19.8%)	79 %	16
Grain	Carared	0.4 kg (7.9%)	75 %	39
Grain	Jęczmień palony	0.05 kg (1%)	55 %	985

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Golding	30 g	60 min	4.4 %
Boil	Hersbrucker	30 g	20 min	3.6 %

### Yeasts

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