

## Warka #6 Składanka Pal

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **46**
- SRM **3.5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **15.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (57.7%)	80 %	5
Grain	Viking Pilsner malt	1 kg (19.2%)	82 %	4
Grain	Red Ale Viking Malt	0.5 kg (9.6%)	--- %	---
Grain	Cookie Viking Malt	0.5 kg (9.6%)	--- %	---
Grain	Strzegom Karmel 300	0.2 kg (3.8%)	--- %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Boil	Lublin (Lubelski)	30 g	40 min	4 %
Boil	Sybilla	15 g	15 min	3.5 %
Dry Hop	Lublin (Lubelski)	20 g	14 day(s)	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	---