

## #19 AMERICAN PALE ALE

- Gravity **14.5 BLG**
- ABV ---
- IBU **40**
- SRM **6.5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.2 liter(s)**
- Total mash volume **27.2 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **21.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **0 min** at **76C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pale ale zero Viking Malt (Strzegom)	3.3 kg (54.5%)	80 %	5
Grain	Słód pilzneński Viking Malt (Strzegom)	2 kg (33.1%)	80 %	4
Grain	Słód karmelowy 150 - Viking Malt (Strzegom)	0.2 kg (3.3%)	78 %	150
Grain	Płatki pszenne	0.5 kg (8.3%)	80 %	4
Grain	Słód zakwaszający Weyermann®	0.05 kg (0.8%)	78 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus	5 g	60 min	16.3 %
Boil	Columbus	15 g	15 min	16.3 %
Boil	Centennial	10 g	15 min	6.8 %
Boil	Amarillo	10 g	15 min	7.8 %
Whirlpool	Centennial	50 g	30 min	6.8 %
Dry Hop	Centennial	40 g	2 day(s)	6.8 %

Dry Hop	Amarillo	20 g	2 day(s)	7.8 %
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## Yeasts

Name	Type	Form	Amount	Laboratory
Fermentis Safale US-05	Ale	Dry	11.5 g	Fermentis