

## NE APA

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- Gravity **14 BLG**
- ABV ---
- IBU **32**
- SRM **4.4**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **4 %**
- Size with trub loss **17.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **20.5 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **16.6 liter(s)**

### Steps

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

### Mash step by step

- Heat up **12.9 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **20.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	1.5 kg (40.5%)	81 %	4
Grain	Weyermann - Pale Ale Malt	1 kg (27%)	85 %	7
Grain	Strzegom Monachijski typ I	0.4 kg (10.8%)	79 %	16
Grain	Pszeniczny	0.4 kg (10.8%)	85 %	4
Grain	Płatki owsiane	0.4 kg (10.8%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	10 g	20 min	11.7 %
Boil	Galaxy	10 g	20 min	13.3 %
Boil	Mosaic	10 g	10 min	11.7 %
Boil	Galaxy	10 g	10 min	13.3 %
Boil	Mosaic	30 g	0 min	11.7 %
Boil	Galaxy	30 g	0 min	13.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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FM52 Amerykański Sen	Ale	Slant	150 ml	Fermentum Mobile
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### Extras

Type	Name	Amount	Use for	Time
Water Agent	Calcium Chloride	5 g	Boil	60 min