

## NE PA

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **35**
- SRM **3.5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

### Steps

- Temp **66 C**, Time **55 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **15 min**

### Mash step by step

- Heat up **15.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **55 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **17.2 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.3 kg (81.1%)	81 %	4
Grain	Płatki owsiane	1 kg (18.9%)	60 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	10 g	50 min	13.2 %
Boil	Amarillo	10 g	50 min	9.5 %
Boil	Simcoe	10 g	15 min	13.2 %
Boil	Amarillo	10 g	15 min	9.5 %
Aroma (end of boil)	Simcoe	15 g	1 min	13.2 %
Aroma (end of boil)	Amarillo	15 g	1 min	9.5 %
Dry Hop	Simcoe	20 g	21 day(s)	13.2 %
Dry Hop	Amarillo	20 g	21 day(s)	9.5 %
Dry Hop	Simcoe	20 g	4 day(s)	13.2 %
Dry Hop	Amarillo	20 g	4 day(s)	9.5 %

### Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
Danstar - Windsor Ale	Ale	Dry	11.5 g	Danstar