

# The last day of 2019

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **18**
- SRM **5.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.1 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **27 liter(s)**

## Steps

- Temp **70 C**, Time **90 min**
- Temp **76 C**, Time **15 min**

## Mash step by step

- Heat up **22.5 liter(s)** of strike water to **75C**
- Add grains
- Keep mash **90 min** at **70C**
- Keep mash **15 min** at **76C**
- Sparge using **6.1 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (66.7%)	80 %	4
Grain	Viking Malt Cookie	0.3 kg (6.7%)	70 %	70
Grain	Płatki pszeniczne	0.2 kg (4.4%)	85 %	3
Grain	Pszeniczny	1 kg (22.2%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Whirlpool	Simcoe	20 g	10 min	13.2 %
Whirlpool	Azacca yakima	26 g	10 min	10.9 %
Whirlpool	Amarillo yakima	26 g	10 min	9.5 %
Dry Hop	Amarillo yakima	60 g	6 day(s)	9.5 %
Dry Hop	Azacca yakima	60 g	6 day(s)	10.9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	22 g	FERMENTIS

## Extras

Type	Name	Amount	Use for	Time
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Water Agent	NaCl	7 g	Mash	90 min
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