

# 001 an 1 naromroK

- Gravity **9 BLG**
- ABV **3.5 %**
- IBU **32**
- SRM **4.9**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.4 liter(s)**

## Steps

- Temp **69 C**, Time **60 min**

## Mash step by step

- Heat up **15.3 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Sparge using **21.5 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (68.6%)	80 %	5
Grain	Żytni	1 kg (19.6%)	85 %	8
Grain	Karmelowy Czerwony	0.3 kg (5.9%)	75 %	59
Grain	Pszeniczny	0.3 kg (5.9%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	11 %
Aroma (end of boil)	Cascade	50 g	5 min	6 %
Aroma (end of boil)	Puławski	50 g	5 min	4.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11 g	Fermentis

## Notes

- Zacieranie na słodko w 69°C przy tych drożdżach da odfermentowanie z 9blg na 4 może 4,5. To daje około 3% alko. więc mało. I o to chodzi i o to chodzi.  
*Oct 23, 2018, 7:14 PM*