

# WWA 12.03.2023

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **40**
- SRM **8.4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **65 min**
- Evaporation rate **15 %/h**
- Boil size **24.1 liter(s)**

## Mash information

- Mash efficiency **86 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.7 liter(s)**
- Total mash volume **14.2 liter(s)**

## Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **10.7 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.2 kg (90.1%)	80 %	5
Grain	Strzegom Karmel 300	0.2 kg (5.6%)	70 %	299
Grain	Pszeniczny	0.15 kg (4.2%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	12.6 %
Boil	lunga	10 g	10 min	12.6 %
Aroma (end of boil)	lunga	30 g	1 min	12.6 %

## Notes

- WWA 12.03  
drożdże: WINDSOR Lallemand 1 paczka - 13.03/14.03 (noc)

Brzeczka nastwna: 18,3 litra , 10,7 BLG  
fermentacja: 18-20°C

30.03- butelkowanie - 100g cukru w 300ml wody  
ODFERMETOWANIE = 4,1 BLG  
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