

# Warsztaty Kielce\_24.10.2021

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **30**
- SRM **3.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 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 **12.6 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 **18 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (95.2%)	81 %	4
Grain	Pszeniczny	0.2 kg (4.8%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	6.5 %
Boil	Amarillo	15 g	15 min	11.1 %
Aroma (end of boil)	Amarillo	35 g	1 min	11.1 %
Dry Hop	Amarillo	50 g	5 day(s)	11.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

## Notes

- Rozlew  
23.11.2021  
115 g cukru w litrze wody  
Nov 23, 2021, 3:55 PM