

# Doppler

- Gravity **24.9 BLG**
- ABV **11.6 %**
- IBU **35**
- SRM **23.1**
- Style **American Brown Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **1.87 liter(s) / kg**
- Mash size **21.4 liter(s)**
- Total mash volume **32.9 liter(s)**

## Steps

- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **60 min**

## Mash step by step

- Heat up **21.4 liter(s)** of strike water to **74.5C**
- Add grains
- Keep mash **60 min** at **63C**
- Keep mash **60 min** at **72C**
- Sparge using **19.1 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	2.3 kg (20.1%)	80 %	7
Grain	Pilzneński	6.16 kg (53.7%)	81 %	4
Grain	Abbey Castle	0.3 kg (2.6%)	80 %	45
Grain	Pszeniczny	0.35 kg (3.1%)	85 %	4
Grain	słód specjal B 260-320EBC	0.8 kg (7%)	80 %	300
Grain	Melanoiden Malt	0.06 kg (0.5%)	80 %	39
Grain	Płatki pszeniczne	1.25 kg (10.9%)	85 %	3
Grain	Caraaroma	0.25 kg (2.2%)	78 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	50 g	60 min	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
wlp 007	Lager	Slant	300 ml	---