

# SUMMER ALE wg Twój Browar

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **39**
- SRM **5.4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

## Steps

- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16.2 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **73C**
- Keep mash **10 min** at **78C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.5 kg (46.3%)	81 %	4
Grain	Strzegom Wiedeński	2 kg (37%)	79 %	10
Grain	Karmelowy Jasny 30EBC	0.5 kg (9.3%)	75 %	30
Grain	Pszeniczny	0.4 kg (7.4%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galaxy	10 g	60 min	14.5 %
Boil	Motueka	25 g	15 min	8 %
Boil	Amarillo	25 g	10 min	8.9 %
Boil	Galaxy	25 g	5 min	14.5 %
Dry Hop	Citra	50 g	5 day(s)	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	11 g	Mangrove Jack's

## Extras

Type	Name	Amount	Use for	Time
Fining	mech	5 g	Boil	15 min