

## #3

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **40**
- SRM **6.3**
- 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 **80 min**
- Evaporation rate **10 %/h**
- Boil size **26.1 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.4 liter(s)**

### Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **15.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2 kg (39.2%)	80 %	4
Grain	Strzegom Pale Ale	2 kg (39.2%)	79 %	6
Grain	Pszeniczny	0.6 kg (11.8%)	83 %	4
Grain	Karmelowy Czerwony	0.5 kg (9.8%)	75 %	60

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	11 %
Boil	Citra	10 g	15 min	13.5 %
Boil	lunga	10 g	15 min	11 %
Boil	Amarillo	10 g	5 min	8.8 %
Aroma (end of boil)	lunga	20 g	0 min	11 %
Dry Hop	lunga	25 g	7 day(s)	11 %
Dry Hop	cascade pl	25 g	7 day(s)	5.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Slant	300 ml	Fermentis