

- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **34**
- SRM **3.7**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.1 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.5 liter(s)**
- Total mash volume **10 liter(s)**

### Steps

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

### Mash step by step

- Heat up **7.5 liter(s)** of strike water to **80.7C**
- Add grains
- Keep mash **60 min** at **72C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **19.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	1.5 kg (60%)	79 %	6
Grain	Żytni	1 kg (40%)	85 %	8

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	8 g	60 min	13.5 %
Boil	Galaxy	10 g	20 min	15 %
Aroma (end of boil)	Galaxy	10 g	0 min	15 %
Dry Hop	Galaxy	20 g	7 day(s)	15 %

### Yeasts

Name	Type	Form	Amount	Laboratory
sawbrew s -33	Ale	Dry	7 g	---