

## IPA po raz pierwszy

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **59**
- SRM **5.8**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **17.3 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **11.9 liter(s)**
- Total mash volume **16.1 liter(s)**

### Steps

- Temp **65 C**, Time **15 min**
- Temp **70 C**, Time **45 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **11.9 liter(s)** of strike water to **73C**
- Add grains
- Keep mash **15 min** at **65C**
- Keep mash **45 min** at **70C**
- Keep mash **10 min** at **76C**
- Sparge using **9.7 liter(s)** of **76C** water or to achieve **17.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pale ale 5.5-7.5 EBC Weyermann	4 kg (94.1%)	79 %	6.5
Grain	Słód Carahell® 20-30 EBC Weyermann	0.25 kg (5.9%)	74 %	25

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	15 g	55 min	13.2 %
Boil	Sticklebract	15 g	30 min	12 %
Boil	Galaxy	15 g	10 min	15 %
Boil	Cascade	15 g	10 min	6 %
Dry Hop	Cascade	15 g	7 day(s)	6 %
Dry Hop	Galaxy	15 g	7 day(s)	15 %

### Yeasts

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