

## SESSION SINGLE HOP PŁ 160 Polish Hops IPA 13 BLG #70

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **32**
- SRM **3.6**
- Style **Specialty Beer**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **17.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.3 liter(s)**
- Total mash volume **12.4 liter(s)**

### Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **9.3 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **11.1 liter(s)** of **76C** water or to achieve **17.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3 kg (96.8%)	81 %	4
Grain	Weyermann - Carapils	0.1 kg (3.2%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	PŁ 160 Polish Hops	70 g	30 min	3.5 %
Aroma (end of boil)	PŁ 160 Polish Hops	50 g	0 min	3.5 %
Dry Hop	PŁ 160 Polish Hops	100 g	5 day(s)	3.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	23 g	Fermentis