

## #196 Forest IPA

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **54**
- SRM **4.7**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **15 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **23.1 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.9 liter(s)**
- Total mash volume **29.5 liter(s)**

### Steps

- Temp **67 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **22.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **45 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **6.8 liter(s)** of **76C** water or to achieve **23.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	6 kg (91.6%)	79 %	4
Grain	Weyermann - Carapils	0.25 kg (3.8%)	78 %	4
Grain	płatki jęczmienne	0.3 kg (4.6%)	60 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	13 g	60 min	16.5 %
Boil	Columbus/Tomahawk/Zeus	37 g	10 min	16.5 %
Boil	Amarillo	50 g	5 min	7.7 %
Dry Hop	Simcoe	50 g	5 day(s)	13.2 %
Dry Hop	Talus	50 g	5 day(s)	8.2 %
Dry Hop	Citra Cryo	25 g	5 day(s)	12 %
Dry Hop	Amarillo	50 g	5 day(s)	7.7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

WLP001 - California Ale Yeast	Ale	Liquid	70 ml	White Labs
-------------------------------	-----	--------	-------	------------

### Extras

Type	Name	Amount	Use for	Time
Other	pȩdy Źwierku	300 g	Boil	10 min
Other	pȩdy jodły	200 g	Boil	10 min