

# Forest IPA

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- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **49**
- SRM **4.7**
- 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 **10 %/h**
- Boil size **19 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **17.6 liter(s)**

## Steps

- Temp **62 C**, Time **10 min**
- Temp **72 C**, Time **45 min**
- Temp **76 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **13.2 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **10 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **10 min** at **76C**
- Keep mash **5 min** at **78C**
- Sparge using **10.2 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.5 kg (79.5%)	81 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (11.4%)	79 %	16
Grain	Płatki owsiane	0.4 kg (9.1%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	15 g	60 min	13 %
Boil	Chinook	10 g	20 min	13 %
Aroma (end of boil)	Idaho 7	10 g	10 min	12.7 %
Aroma (end of boil)	Citra	10 g	5 min	12 %
Aroma (end of boil)	Simcoe	10 g	5 min	13.2 %
Dry Hop	Idaho 7	20 g	3 day(s)	12.7 %
Dry Hop	Citra	20 g	3 day(s)	12 %
Dry Hop	Simcoe	20 g	3 day(s)	13.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Spice	pałki sosny	20 g	Boil	15 min
Spice	gałazki swierku	40 g	Boil	15 min
Fining	mech irlandzki	3 g	Boil	15 min