

# HopIPA 15l

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **46**
- SRM **7.8**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **10 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **80 min**
- Evaporation rate **15 %/h**
- Boil size **21.6 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.4 liter(s)**
- Total mash volume **17.8 liter(s)**

## Steps

- Temp **55 C**, Time **1 min**
- Temp **64 C**, Time **60 min**
- Temp **71 C**, Time **15 min**
- Temp **78 C**, Time **4 min**

## Mash step by step

- Heat up **13.4 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **1 min** at **55C**
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **71C**
- Keep mash **4 min** at **78C**
- Sparge using **12.7 liter(s)** of **76C** water or to achieve **21.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.6 kg (80.9%)	81 %	4
Grain	Pszeniczny	0.44 kg (9.9%)	85 %	4
Grain	Strzegom Monachijski typ I	0.26 kg (5.8%)	79 %	90
Grain	caragold	0.15 kg (3.4%)	80 %	120

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	25 g	60 min	14.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	6.6 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Water Agent	chlerek wapnia	5.7 g	Boil	80 min

Other	płatki błyskawiczne	250 g	Mash	60 min
Flavor	owoce tropikalne	450 g	Boil	15 min
Flavor	owoce tropikalne	450 g	Secondary	10 day(s)
Herb	jałowiec	50 g	Boil	15 min
Herb	jałowiec	17 g	Secondary	10 day(s)
Herb	trawa cytrynowa	10 g	Boil	15 min
Spice	zest z cytrusów	35 g	Boil	10 min
Spice	zest z cytrusów	30 g	Boil	5 min
Fining	mech irlandzki	3.75 g	Boil	15 min