

# 100% Flakes IPA

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **32**
- SRM **3.6**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **30 min**
- Evaporation rate **10 %/h**
- Boil size **14.5 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.2 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**

## Mash step by step

- Heat up **12.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **5.5 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Oats, Flaked	0.4 kg (11.1%)	80 %	2
Grain	Wheat, Flaked	0.4 kg (11.1%)	77 %	4
Grain	Rye, Flaked	0.4 kg (11.1%)	78.3 %	4
Grain	Barley, Flaked	0.4 kg (11.1%)	70 %	4
Grain	Corn, Flaked	0.4 kg (11.1%)	80 %	2
Grain	Rice, Flaked	0.4 kg (11.1%)	70 %	2
Grain	Spelt, Flaked	0.4 kg (11.1%)	77 %	4
Grain	Płatki jaglane xD	0.4 kg (11.1%)	70 %	2
Grain	Kasza gryczana	0.4 kg (11.1%)	70 %	2

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	4 g	60 min	13.5 %
Whirlpool	Cascade PL	60 g	30 min	5.5 %
Dry Hop	Cascade PL	40 g	3 day(s)	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Omega HotHead Ale	Ale	Slant	1 ml	asdad

## Notes

- poszły dwa enzymy - 12 ml glukoamylazy i alfa-amylazaza (dawka na 3 kg)  
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