

# Milkshake IPA

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- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **44**
- SRM **6.4**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **19.3 liter(s)**
- Trub loss **8 %**
- Size with trub loss **22.4 liter(s)**
- Boil time **65 min**
- Evaporation rate **9 %/h**
- Boil size **30.5 liter(s)**

## Mash information

- Mash efficiency **76 %**
- Liquor-to-grist ratio **2.9 liter(s) / kg**
- Mash size **21.5 liter(s)**
- Total mash volume **28.9 liter(s)**

## Steps

- Temp **59 C**, Time **0 min**
- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **21.5 liter(s)** of strike water to **65.7C**
- Add grains
- Keep mash **0 min** at **59C**
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **30.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5 kg (67.6%)	89 %	7
Grain	Pilzneński	2 kg (27%)	89 %	4
Grain	Weyermann - Carahell	0.2 kg (2.7%)	89 %	26
Grain	Weyermann - zakwuszający	0.1 kg (1.4%)	89 %	5
Grain	Strzegom Karmel 150	0.1 kg (1.4%)	89 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Enigma (AUS)	30 g	50 min	17.2 %
Aroma (end of boil)	Huell Melon	30 g	10 min	7.5 %
Dry Hop	Enigma (AUS)	60 g	2 day(s)	17.2 %
Dry Hop	Huell Melon	60 g	2 day(s)	7.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast 1450 Denny's Favorite 50 (po 1 warce)	Ale	Liquid	200 ml	Wyeast

### Extras

Type	Name	Amount	Use for	Time
Flavor	płatki owsiane	500 g	Mash	---
Flavor	płatki żytnie	200 g	Mash	---
Flavor	laktozza	250 g	Boil	15 min
Fining	mech irlandzki	6 g	Boil	15 min
Other	pożywka dla drożdży	10 g	Boil	15 min
Fining	Biersol	9 g	Boil	0 min
Flavor	płatki dębowe Pure Vanilla	20 g	Secondary	5 day(s)
Flavor	owoce suszone czarnego bzu	0 g	Secondary	1 day(s)
Flavor	sok z czarnego bzu	0 g	Bottling	---