

# Milkshake IPA z mango

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **32**
- SRM **4.1**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **15 %**
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.6 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.6 liter(s)**
- Total mash volume **26.5 liter(s)**

## Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **20.6 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (65%)	81 %	4
Grain	Płatki pszeniczne	1 kg (16.3%)	85 %	3
Grain	Płatki owsiane	0.6 kg (9.8%)	85 %	3
Grain	Strzegom Monachijski typ II	0.3 kg (4.9%)	79 %	22
Sugar	Laktoza	0.25 kg (4.1%)	100 %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Equinox	25 g	60 min	12.8 %
Aroma (end of boil)	Equinox	50 g	1 min	12.8 %
Dry Hop	Mosaic	50 g	2 day(s)	10.4 %
Dry Hop	Equinox	25 g	2 day(s)	12.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	---

FM55 Zielone Wzgórze	Ale	Liquid	120 ml	Fermentum Mobile
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### Extras

Type	Name	Amount	Use for	Time
Other	Laktoza	250 g	Boil	10 min
Flavor	Pulpa z mango	1700 g	Primary	7 day(s)
Water Agent	Gips piwowarski	5 g	Mash	50 min
Other	Kwas askorbinowy	4 g	Bottling	---

### Notes

- <http://blog.homebrewing.pl/milkshake-ipa-z-mango-i-czarna-porzeczka-receptura/>  
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