

# milkshake

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **53**
- SRM **4.2**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.1 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18.5 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **14 liter(s)** of strike water to **75.7C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **77C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) Bel	4 kg (88.9%)	80 %	6
Grain	Pszeniczny	0.5 kg (11.1%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	15 g	60 min	12 %
Boil	Mosaic	20 g	60 min	10 %
Aroma (end of boil)	Citra	35 g	5 min	12 %
Whirlpool	Mosaic	30 g	0 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	10 g	Mangrove Jack's

## Extras

Type	Name	Amount	Use for	Time
Flavor	Kiwi	1500 g	Secondary	5 day(s)
Other	laktoza	750 g	Boil	0 min