

## #? Milkshake Raspberry APA

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **30**
- SRM **4.5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **0 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **23.5 liter(s)**

### Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

### Steps

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

### Mash step by step

- Heat up **14.4 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **23.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	3.2 kg (58.7%)	80 %	5
Grain	Pszeniczny	0.6 kg (11%)	85 %	4
Grain	Cara Blonde	0.2 kg (3.7%)	78 %	20
Grain	Płatki owsiane	0.8 kg (14.7%)	60 %	3
Sugar	laktoza	0.65 kg (11.9%)	60 %	1

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	15 g	60 min	12 %
Aroma (end of boil)	Enigma (AUS)	25 g	5 min	17.2 %
Whirlpool	Enigma (AUS)	25 g	0 min	17.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Us-05	Ale	Dry	11 g	SafAle

### Extras

Type	Name	Amount	Use for	Time
Flavor	Maliny	1200 g	Secondary	15 day(s)