

## Lab #1 - IPA Mleczna

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- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **36**
- SRM **5.2**
- Style **White IPA**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **12 liter(s)**
- Boil time **40 min**
- Evaporation rate **19 %/h**
- Boil size **14.1 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

### Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **9 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **8.1 liter(s)** of **76C** water or to achieve **14.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	viking golden ale	1 kg (29.4%)	80 %	12
Grain	Strzegom Pszeniczny	0.5 kg (14.7%)	81 %	6
Grain	Strzegom Pilzneński	1 kg (29.4%)	80 %	4
Grain	Płatki pszeniczne	0.5 kg (14.7%)	60 %	3
Sugar	Milk Sugar (Lactose)	0.4 kg (11.8%)	100 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Enigma (AUS)	20 g	10 min	16.3 %
Whirlpool	Calypso	30 g	10 min	14.9 %
Dry Hop	Calypso	70 g	7 day(s)	14.9 %
Dry Hop	Enigma (AUS)	80 g	4 day(s)	16.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Fermentis