

## graff\_mk

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- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **21**
- SRM **10.4**
- Style **Fruit Beer**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.4 liter(s)**

### Mash information

- Mash efficiency **74 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.8 liter(s)**

### Steps

- Temp **68 C**, Time **70 min**

### Mash step by step

- Heat up **16.8 liter(s)** of strike water to **76.6C**
- Add grains
- Keep mash **70 min** at **68C**
- Sparge using **18.6 liter(s)** of **76C** water or to achieve **29.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	4 kg (61.5%)	80 %	7
Grain	Biscuit Malt	0.5 kg (7.7%)	79 %	45
Grain	żytni Strzegom	0.5 kg (7.7%)	75 %	150
Grain	Pszeniczny	0.5 kg (7.7%)	85 %	4
Sugar	sok jablkowy	0.5 kg (7.7%)	--- %	---
Grain	Strzegom Monachijski typ I	0.5 kg (7.7%)	79 %	16

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	30 g	40 min	9 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Slant	2000 ml	Danstar