

## 4# graff jabłkowy

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **14**
- SRM **13.3**

### 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)**

### Fermentables

Type	Name	Amount	Yield	EBC
Dry Extract	wheat malt	0.5 kg (4.5%)	80 %	12
Dry Extract	barley malt	0.5 kg (4.5%)	80 %	12
Adjunct	sok jabłkowy	10 kg (90.9%)	20 %	15

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	15 g	50 min	6 %
Aroma (end of boil)	Cascade	15 g	10 min	6 %
Aroma (end of boil)	Cascade	10 g	1 min	6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Flavor	ksylitol	180 g	Boil	10 min
Flavor	laktoza	250 g	Boil	10 min