

## APA z Twójbrowar+dodatek

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **34**
- SRM **4.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **17 %/h**
- Boil size **29.6 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	2.5 kg (50%)	80 %	7
Grain	Pszeniczny	0.5 kg (10%)	85 %	4
Grain	Pilznieński	1.3 kg (26%)	81 %	4
Grain	Pilznieński - dodany do receptury	0.7 kg (14%)	81 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Whirlpool	Cascade	80 g	10 min	6 %
Whirlpool	Centennial	40 g	10 min	10.5 %
Whirlpool	Citra	30 g	10 min	12 %
Whirlpool	Chinook	50 g	10 min	13 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	100 ml	Fermentum Mobile