

## 6# Forest APA

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **29**
- SRM **7.5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **14.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **9.6 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (63.8%)	80 %	5
Grain	Słód diastatyczny jęczmienny	0.5 kg (10.6%)	80 %	3
Grain	Weyermann - Pale Wheat Malt	0.5 kg (10.6%)	85 %	5
Grain	Biscuit Malt	0.25 kg (5.3%)	79 %	45
Grain	Caramunich® typ I	0.25 kg (5.3%)	73 %	80
Grain	Pilzneński	0.2 kg (4.3%)	81 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Styrian Golding	30 g	60 min	3.6 %
Boil	Lublin (Lubelski)	26 g	60 min	4 %
Dry Hop	Mandarina Bavaria	50 g	3 day(s)	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Herb	pędy świerku	400 g	Boil	15 min
Water Agent	Whirlfloc	1 g	Boil	10 min
Water Agent	Gips Piwowarski	4 g	Boil	60 min