

## Forest PK 2

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- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **27**
- SRM **4.3**
- Style **American Pale Ale**

### 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 **15 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

### Steps

- Temp **50 C**, Time **5 min**
- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **17.5 liter(s)** of strike water to **54.3C**
- Add grains
- Keep mash **5 min** at **50C**
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **76C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale Best	2.1 kg (42%)	80 %	6
Grain	Pilsner Malz Best	1 kg (20%)	81 %	3
Grain	Wiener Malz Best	1 kg (20%)	80 %	8
Grain	Weizenmalz Best	0.3 kg (6%)	82 %	4
Grain	Oats, Flaked	0.4 kg (8%)	80 %	2
Grain	Carapils Best	0.2 kg (4%)	75 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Perle	3 g	60 min	9.7 %
Whirlpool	Amarillo	5 g	20 min	8.9 %
Whirlpool	Citra	10 g	20 min	13.9 %
Whirlpool	Centenial	20 g	20 min	13.9 %
Dry Hop	Galaxy	20 g	20 day(s)	14.5 %
Dry Hop	El Dorado	25 g	3 day(s)	14 %
Boil	Młode pędy świerku	50 g	15 min	1 %
Whirlpool	Młode pędy świerku	200 g	20 min	1 %

Dry Hop	Cascade	20 g	5 day(s)	5.9 %
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### Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - 1728 Scottish Ale	Ale	Liquid	100 ml	Wyeast Labs

### Extras

Type	Name	Amount	Use for	Time
Flavor	Młode pędy świerku	50 g	Boil	30 min
Flavor	Młode pędy świerku	100 g	Boil	0 min
Water Agent	CaCl <sub>2</sub> 33%	1 g	Mash	---
Water Agent	Gips Piwowarski	3 g	Mash	---
Water Agent	Kwas mlekowy	3 g	Mash	---