

# Forest APA

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **31**
- SRM **3.8**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.8 liter(s)**

## Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **10.3 liter(s)**
- Total mash volume **14.4 liter(s)**

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2.2 kg (53.7%)	82 %	4
Grain	Płatki owsiane	0.6 kg (14.6%)	85 %	3
Grain	Viking Wheat Malt	1 kg (24.4%)	83 %	5
Grain	Płatki żytnie	0.3 kg (7.3%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	15 g	20 min	13.2 %
Whirlpool	Simcoe	45 g	5 min	13.2 %
Whirlpool	Cascade PL	50 g	5 min	5.2 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Flavor	Gałązki świerku	0 g	Mash	0 min
Flavor	Gałązki sosny	0 g	Mash	0 min
Flavor	Gałązki jodły	0 g	Mash	0 min

## Notes

- Przez wypełniony fermentor i gałązkami przefiltrować zacier.  
Użyto 70% świerku 15% sosny 15% jodły.  
*May 2, 2020, 7:33 PM*