

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 |