

SPRING APA

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **57**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **62 C**, Time **25 min**
- Temp **73 C**, Time **45 min**
- Temp **78 C**, Time **30 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **25 min** at **62C**
- Keep mash **45 min** at **73C**
- Keep mash **30 min** at **78C**
- Sparge using **21 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|--------------|-------|-----|
| Grain | Briess - Pale Ale Malt | 5 kg (83.3%) | 80 % | 7 |
| Grain | Pszeniczny | 1 kg (16.7%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | Summit | 5 g | 60 min | 18 % |
| Boil | Summit | 10 g | 30 min | 18 % |
| Boil | Centennial | 10 g | 30 min | 10.5 % |
| Boil | Summit | 10 g | 15 min | 18 % |
| Boil | Centennial | 10 g | 15 min | 10.5 % |
| Boil | Summit | 10 g | 10 min | 18 % |
| Boil | Centennial | 10 g | 10 min | 10.5 % |
| Boil | Cascade PL | 15 g | 10 min | 5.2 % |
| Boil | Summit | 10 g | 5 min | 18 % |
| Boil | Centennial | 10 g | 5 min | 10.5 % |
| Boil | Cascade PL | 15 g | 5 min | 5.2 % |
| Boil | Summit | 15 g | 0 min | 18 % |

| | | | | |
|---------------------|------------|------|----------|--------|
| Boil | Centennial | 10 g | 0 min | 10.5 % |
| Boil | Cascade PL | 15 g | 0 min | 5.2 % |
| Aroma (end of boil) | summit | 15 g | -3 min | 18 % |
| Aroma (end of boil) | Centennial | 10 g | -3 min | 10.5 % |
| Aroma (end of boil) | Cascade PL | 15 g | -3 min | 5.2 % |
| Dry Hop | Summit | 25 g | 4 day(s) | 18 % |
| Dry Hop | Centennial | 30 g | 4 day(s) | 10.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------|------|--------|--------|------------|
| Gęstwa z us05 | Ale | Liquid | 100 ml | moje |