

#19 APA SRAPA

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **38**
- SRM **5.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **24.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.63 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **21.1 liter(s)**

Steps

- Temp **67 C**, Time **75 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **73.5C**
- Add grains
- Keep mash **75 min** at **67C**
- Keep mash **15 min** at **78C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **24.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Briess - Pale Ale Malt | 3.6 kg (79.1%) | 80 % | 7 |
| Grain | Płatki owsiane | 0.3 kg (6.6%) | 85 % | 3 |
| Grain | Strzegom Pszeniczny | 0.2 kg (4.4%) | 81 % | 6 |
| Grain | Carabelge | 0.2 kg (4.4%) | 80 % | 30 |
| Grain | Monachijski | 0.2 kg (4.4%) | 80 % | 16 |
| Grain | Sauermalz | 0.05 kg (1.1%) | 80 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil | Summit | 15 g | 60 min | 14.1 % |
| Boil | Cascade | 5 g | 15 min | 9 % |
| Boil | Citra | 5 g | 15 min | 13.7 % |
| Boil | Amarillo | 5 g | 15 min | 8.9 % |
| Boil | Cascade | 5 g | 5 min | 9 % |
| Boil | Citra | 5 g | 5 min | 13.7 % |
| Boil | Amarillo | 5 g | 5 min | 8.9 % |
| Aroma (end of boil) | Cascade | 5 g | 0 min | 9 % |
| Aroma (end of boil) | Citra | 5 g | 0 min | 13.7 % |

| | | | | |
|---------------------|------------|------|-------|--------|
| Aroma (end of boil) | Amarillo | 5 g | 0 min | 8.9 % |
| Whirlpool | Cascade | 15 g | 0 min | 9 % |
| Whirlpool | Centennial | 15 g | 0 min | 10.6 % |
| Whirlpool | Citra | 15 g | 0 min | 13.7 % |
| Whirlpool | Amarillo | 15 g | 0 min | 8.9 % |