

Apa#1

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **32**
- SRM **4.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **18.9 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **68 C**, Time **10 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **14.7 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **10 min** at **68C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Viking Pilsner malt | 2 kg (47.6%) | 82 % | 4 |
| Grain | Viking Pale Ale malt | 1 kg (23.8%) | 80 % | 5 |
| Grain | Strzegom Monachijski typ II | 1 kg (23.8%) | 79 % | 22 |
| Grain | Pszeniczny | 0.2 kg (4.8%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil | Chinook | 20 g | 60 min | 7.6 % |
| Boil | Chinook | 10 g | 30 min | 7.6 % |
| Boil | Cascade | 15 g | 15 min | 7.1 % |
| Aroma (end of boil) | Cascade | 10 g | 5 min | 7.1 % |
| Aroma (end of boil) | Cascade | 10 g | 0 min | 6 % |
| Aroma (end of boil) | Citra | 10 g | 0 min | 12 % |
| Dry Hop | Cascade | 20 g | 6 day(s) | 7.1 % |
| Dry Hop | Citra | 20 g | 6 day(s) | 12 % |

| | | | | |
|---------|----------|------|----------|-------|
| Dry Hop | Amarillo | 15 g | 6 day(s) | 9.5 % |
|---------|----------|------|----------|-------|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------|------|------|--------|------------|
| s - 05 | Ale | Dry | 11.5 g | fermentis |