

APA v22 #131

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **30**
- SRM **4.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **77 C**, Time **7 min**

Mash step by step

- Heat up **15.6 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **7 min** at **77C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|---------------|-------|-----|
| Grain | pilzneński - viking | 3 kg (57.7%) | 80 % | 3.6 |
| Grain | pale ale - viking | 1 kg (19.2%) | 80 % | 5.5 |
| Grain | pszeniczny - bestmalz | 0.5 kg (9.6%) | 83 % | 5 |
| Grain | wiedeński - viking | 0.4 kg (7.7%) | 78 % | 9 |
| Grain | karmelowy 30 - viking | 0.3 kg (5.8%) | 73 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|----------|------------|
| Boil | Warrior | 9 g | 60 min | 14.7 % |
| Aroma (end of boil) | Columbus | 20 g | 5 min | 15.8 % |
| Aroma (end of boil) | Simcoe | 20 g | 5 min | 12.9 % |
| Aroma (end of boil) | Falconer's Flight | 50 g | 1 min | 10.3 % |
| Dry Hop | Falconer's Flight | 50 g | 1 day(s) | 10.3 % |
| Dry Hop | Hallertau Blanc | 30 g | 1 day(s) | 5.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|----------------------|-----|-------|--------|------------------|
| FM52 Amerykański Sen | Ale | Slant | 150 ml | Fermentum Mobile |
| gęstwa 30-dniowa | | | | |

Extras

| Type | Name | Amount | Use for | Time |
|-----------------------------|------------------------|--------|----------|--------|
| Water Agent | Gips | 2.5 g | Mash | --- |
| Water Agent | kwask mlekowy 80% [ml] | 4.65 g | Mash | --- |
| Water Agent | chlerek wapnia [ml] | 0 g | Mash | --- |
| Water Agent | węglan wapnia/kreda | 0 g | Mash | --- |
| Water Agent | sól epsom | 0.5 g | Mash | --- |
| Fining | irish moss | 3 g | Boil | 10 min |
| zastanowić się czy dodawać? | | | | |
| Water Agent | kwask askorbinowy | 3.6 g | Bottling | --- |