

EPA! EPA!

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **43**
- SRM **5.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.3 liter(s)**
- Total mash volume **28.7 liter(s)**

Steps

- Temp **58 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **22.3 liter(s)** of strike water to **63.4C**
- Add grains
- Keep mash **10 min** at **58C**
- Keep mash **30 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|-----------------|-------|-----|
| Grain | Strzegom Wiedeński | 1.2 kg (18.8%) | 79 % | 10 |
| Grain | Viking Pale Ale malt | 3.6 kg (56.5%) | 80 % | 5 |
| Grain | Pszeniczny | 1.25 kg (19.6%) | 85 % | 4 |
| Grain | Melanoiden Malt | 0.32 kg (5%) | 80 % | 39 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------------|--------|----------|------------|
| Aroma (end of boil) | Enigma (AUS) | 20 g | 20 min | 17.2 % |
| Aroma (end of boil) | Enigma (AUS) | 15 g | 12 min | 17.2 % |
| Aroma (end of boil) | Enigma (AUS) | 15 g | 7 min | 17.2 % |
| Aroma (end of boil) | Enigma (AUS) | 25 g | 3 min | 17.2 % |
| Aroma (end of boil) | Enigma (AUS) | 25 g | 0 min | 17.2 % |
| Dry Hop | Enigma (AUS) | 50 g | 7 day(s) | 17.2 % |

Yeasts

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

| | | | | |
|----------------------|-----|-------|---------|------------------|
| FM52 Amerykański Sen | Ale | Slant | 1000 ml | Fermentum Mobile |
|----------------------|-----|-------|---------|------------------|

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | Mech irlandzki | 5 g | Boil | 10 min |