

IPA v16 #127

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **61**
- SRM **6.1**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **17.4 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.6 liter(s)**
- Boil time **80 min**
- Evaporation rate **22 %/h**
- Boil size **24.6 liter(s)**

Mash information

- Mash efficiency **85.4 %**
- Liquor-to-grist ratio **3.27 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.6 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **7 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **73.1C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **7 min** at **77C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **24.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | pale ale - viking | 2.9 kg (63%) | 80 % | 5.5 |
| Grain | pszeniczny - bestmalz | 0.25 kg (5.4%) | 82 % | 5 |
| Grain | wiedeński - viking | 0.7 kg (15.2%) | 79 % | 8.6 |
| Grain | monachijski I - viking | 0.7 kg (15.2%) | 79 % | 16 |
| Grain | Chateau - cara gold | 0.05 kg (1.1%) | 78 % | 120 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil | Magnum | 15 g | 60 min | 11.5 % |
| Boil | Columbus | 30 g | 15 min | 15.7 % |
| Aroma (end of boil) | Sabro | 20 g | 5 min | 14.8 % |
| Aroma (end of boil) | Strata | 50 g | 1 min | 15.5 % |
| Aroma (end of boil) | Galaxy | 30 g | 1 min | 17.4 % |
| Dry Hop | Sabro | 30 g | 2 day(s) | 14.8 % |
| Dry Hop | Strata | 50 g | 2 day(s) | 14.5 % |
| Dry Hop | Galaxy | 20 g | 2 day(s) | 17.4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|--------|--------|------------------|
| FM52 Amerykański Sen | Ale | Liquid | 120 ml | Fermentum Mobile |
| 49-dniowa gęstwa | | | | |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|------------------------|--------|----------|--------|
| Water Agent | gips | 3 g | Mash | --- |
| Water Agent | kwask mlekowy 80% [ml] | 3.85 g | Mash | --- |
| Water Agent | chlorek wapnia [ml] | 0 g | Mash | --- |
| Water Agent | epsom | 0.5 g | Mash | --- |
| Water Agent | mech irlandzki | 3 g | Boil | 15 min |
| Water Agent | kwask askorbinowy | 3.4 g | Bottling | --- |