

Summer ale z szyszkami sosny

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **109**
- SRM **4**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 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 **22.8 liter(s)**
- Total mash volume **29.3 liter(s)**

Steps

- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **80 C**, Time **3 min**

Mash step by step

- Heat up **22.8 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **15 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **3 min** at **80C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt | 5 kg (76.9%) | 82 % | 4 |
| Grain | Weyermann - Carapils | 0.7 kg (10.8%) | 78 % | 4 |
| Grain | Płatki owsiane | 0.3 kg (4.6%) | 60 % | 3 |
| Grain | Pszeniczny | 0.5 kg (7.7%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|------------|--------|----------|------------|
| Boil | Chinook | 65 g | 40 min | 10 % |
| Whirlpool | Mosaic | 40 g | 60 min | 10 % |
| Whirlpool | Chinook | 10 g | 60 min | 13 % |
| Whirlpool | Citra | 50 g | 60 min | 12 % |
| Dry Hop | Cascade PL | 50 g | 7 day(s) | 5.2 % |
| Dry Hop | Mosaic | 30 g | 7 day(s) | 10 % |
| Dry Hop | Citra | 30 g | 7 day(s) | 12 % |

Yeasts

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

| | | | | |
|---------------------------------|-----|-----|------|-----------|
| Lallemand - LalBrew Verdant IPA | Ale | Dry | 11 g | Lallemand |
|---------------------------------|-----|-----|------|-----------|

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------------------------------------|--------|---------|-------|
| Flavor | Szyszki i pędy sosny z syropu do wyśładzania | 500 g | Boil | 5 min |