

# IPA v19 #141

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **58**
- SRM **5.9**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **19.2 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.5 liter(s)**
- Boil time **80 min**
- Evaporation rate **19.3 %/h**
- Boil size **26 liter(s)**

## Mash information

- Mash efficiency **84.9 %**
- Liquor-to-grist ratio **3.85 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25.2 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **7 min**

## Mash step by step

- Heat up **20 liter(s)** of strike water to **70.9C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **7 min** at **77C**
- Sparge using **11.2 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

## Fermentables

| Type  | Name                    | Amount           | Yield | EBC |
|-------|-------------------------|------------------|-------|-----|
| Grain | pilzneński - viking     | 2.524 kg (48.5%) | 80 %  | 3.6 |
| Grain | pale ale - viking       | 1.276 kg (24.5%) | 80 %  | 5.5 |
| Grain | płatki owsiane          | 0.215 kg (4.1%)  | 83 %  | 3   |
| Grain | pszeniczny - bestmalz   | 0.3 kg (5.8%)    | 82 %  | 5   |
| Grain | wiedeński - viking      | 0.088 kg (1.7%)  | 79 %  | 8.6 |
| Grain | monachijski II - viking | 0.4 kg (7.7%)    | 79 %  | 22  |
| Grain | karmelowy30 - viking    | 0.3 kg (5.8%)    | 73 %  | 30  |
| Grain | biscuit - chateau       | 0.1 kg (1.9%)    | 77 %  | 50  |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Warrior | 16 g   | 60 min | 14.7 %     |
| Boil                | CTZ     | 20 g   | 15 min | 10.7 %     |
| Aroma (end of boil) | Oktawia | 30 g   | 5 min  | 7.8 %      |
| Aroma (end of boil) | Strata  | 25 g   | 5 min  | 14.5 %     |

|                     |          |      |          |        |
|---------------------|----------|------|----------|--------|
| Aroma (end of boil) | Amarillo | 25 g | 5 min    | 9.9 %  |
| Aroma (end of boil) | Talus    | 20 g | 5 min    | 7.9 %  |
| Dry Hop             | Strata   | 29 g | 2 day(s) | 14.5 % |
| Dry Hop             | Oktawia  | 40 g | 2 day(s) | 7.8 %  |
| Dry Hop             | Lotus    | 20 g | 2 day(s) | 15.2 % |
| Dry Hop             | Amarillo | 15 g | 2 day(s) | 9.9 %  |

## Yeasts

| Name                 | Type | Form  | Amount | Laboratory       |
|----------------------|------|-------|--------|------------------|
| FM52 Amerykański Sen | Ale  | Slant | 175 ml | Fermentum Mobile |
| 30-dniowa gęstwa     |      |       |        |                  |

## Extras

| Type        | Name                   | Amount | Use for  | Time   |
|-------------|------------------------|--------|----------|--------|
| Water Agent | gips                   | 3 g    | Mash     | ---    |
| Water Agent | kwask mlekowy 80% [ml] | 4.49 g | Mash     | ---    |
| Water Agent | chlerek 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      | 4 g    | Bottling | ---    |