

# Kup se u niemca bro

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **36**
- SRM **3.5**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.4 liter(s)**
- Total mash volume **27.2 liter(s)**

## Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **25 min**
- Temp **77 C**, Time **5 min**

## Mash step by step

- Heat up **20.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **25 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **12.8 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield  | EBC |
|-------|----------------------------|----------------|--------|-----|
| Grain | Heidelberg                 | 3.5 kg (51.5%) | 80.5 % | 2   |
| Grain | Oats, Malted               | 0.5 kg (7.4%)  | 80 %   | 2   |
| Grain | Briess - Wheat Malt, White | 0.5 kg (7.4%)  | 85 %   | 5   |
| Grain | Oats, Flaked               | 0.3 kg (4.4%)  | 80 %   | 2   |
| Grain | Wheat, Flaked              | 0.5 kg (7.4%)  | 77 %   | 4   |
| Grain | Chit Malt                  | 1.5 kg (22.1%) | 50 %   | 2   |

## Hops

| Use for             | Name     | Amount | Time   | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil                | Talus    | 20 g   | 40 min | 8.2 %      |
| Boil                | Amarillo | 30 g   | 30 min | 9.5 %      |
| Boil                | Zula     | 10 g   | 5 min  | 8.3 %      |
| Aroma (end of boil) | Amarillo | 20 g   | 0 min  | 9.5 %      |
| Whirlpool           | Zula     | 40 g   | 0 min  | 10 %       |

## Yeasts

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

|                                    |     |     |      |           |
|------------------------------------|-----|-----|------|-----------|
| Lallemand - LalBrew<br>Verdant IPA | Ale | Dry | 11 g | Lallemand |
|------------------------------------|-----|-----|------|-----------|

## Notes

- Na bio od razu z drożdżami Talus 30 g  
Potem co 2 dni naprzemiennie talus i amarillo.

Fermentacja 18 C 6 dni

22 C 4 dni

*Nov 16, 2024, 9:14 PM*