

## Żytnia APA

- Gravity **13.3 BLG**
- ABV ---
- IBU **42**
- SRM **4.6**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **46 liter(s)**
- Trub loss **5 %**
- Size with trub loss **48.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **58.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **33 liter(s)**
- Total mash volume **44 liter(s)**

### Fermentables

| Type  | Name                 | Amount       | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt | 8 kg (72.7%) | 80 %  | 5   |
| Grain | Żytni                | 3 kg (27.3%) | 85 %  | 8   |

### Hops

| Use for             | Name       | Amount | Time   | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil                | iung       | 20 g   | 60 min | 12 %       |
| Boil                | Citra      | 20 g   | 15 min | 12 %       |
| Boil                | Centennial | 10 g   | 15 min | 10.5 %     |
| Boil                | Chinook    | 30 g   | 15 min | 13 %       |
| Boil                | Citra      | 20 g   | 7 min  | 12 %       |
| Aroma (end of boil) | Centennial | 20 g   | 7 min  | 10.5 %     |
| Aroma (end of boil) | Chinook    | 30 g   | 7 min  | 13 %       |
| Aroma (end of boil) | Citra      | 20 g   | 0 min  | 12 %       |
| Aroma (end of boil) | Centennial | 20 g   | 0 min  | 10.5 %     |
| Aroma (end of boil) | Chinook    | 40 g   | 0 min  | 13 %       |

### Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| us-05 | Ale  | Dry  | 20 g   | ---        |