

Świąteczne Żytnie Ale

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **28**
- SRM **6.9**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **45 min**
- Evaporation rate **10 %/h**
- Boil size **24.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------------|--------------|-------|-----|
| Grain | Żytni Viking Malt | 2 kg (33.3%) | 81 % | 7 |
| Grain | Pale Ale Viking malt | 3 kg (50%) | 80 % | 5 |
| Grain | Słód Karmelowy 30 Viking Malt | 1 kg (16.7%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------|--------|--------|------------|
| Boil | Centennial | 30 g | 55 min | 8.5 % |
| Aroma (end of boil) | Cascade USA | 12 g | 15 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|-------|---------|------------------|
| FM12 W szkocką kratę | Ale | Slant | 1000 ml | Fermentum Mobile |

Extras

| Type | Name | Amount | Use for | Time |
|-------|-----------|--------|---------|--------|
| Spice | Przyprawy | 20 g | Boil | 15 min |