

## #86 Xmas Ale

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **38**
- SRM **35.2**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **8.05 liter(s)**
- Trub loss **5 %**
- Size with trub loss **8.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **20 %/h**
- Boil size **11 liter(s)**

### Mash information

- Mash efficiency **66 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **9.9 liter(s)**
- Total mash volume **12.8 liter(s)**

### Steps

- Temp **65 C**, Time **35 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **9.9 liter(s)** of strike water to **71.6C**
- Add grains
- Keep mash **35 min** at **65C**
- Keep mash **45 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **4 liter(s)** of **76C** water or to achieve **11 liter(s)** of wort

### Fermentables

| Type  | Name                          | Amount         | Yield | EBC  |
|-------|-------------------------------|----------------|-------|------|
| Grain | Briess - Pale Ale Malt        | 1.1 kg (37.9%) | 79 %  | 6    |
| Grain | Weyermann - Smoked Malt       | 0.5 kg (17.2%) | 81 %  | 6    |
| Grain | Płatki owsiane                | 0.5 kg (17.2%) | 85 %  | 3    |
| Grain | Pszeniczny                    | 0.25 kg (8.6%) | 85 %  | 4    |
| Grain | Strzegom Czekoladowy jasny    | 0.22 kg (7.6%) | 68 %  | 400  |
| Grain | Aromatic Malt                 | 0.18 kg (6.2%) | 78 %  | 50   |
| Grain | Weyermann - Carafa II Special | 0.15 kg (5.2%) | 65 %  | 1150 |

### Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | lunga | 7 g    | 60 min | 11 %       |
| Boil    | lunga | 9 g    | 30 min | 11 %       |

### Yeasts

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

|                      |     |       |       |                  |
|----------------------|-----|-------|-------|------------------|
| FM52 Amerykański Sen | Ale | Slant | 90 ml | Fermentum Mobile |
|----------------------|-----|-------|-------|------------------|

### Extras

| Type  | Name                      | Amount | Use for | Time   |
|-------|---------------------------|--------|---------|--------|
| Spice | Cynamon                   | 4.2 g  | Boil    | 10 min |
| Spice | Goździki                  | 3 g    | Boil    | 10 min |
| Spice | Kardamon                  | 2 g    | Boil    | 10 min |
| Spice | Suszona skórka pomarańczy | 10 g   | Boil    | 10 min |
| Spice | Suszony owoc dzikiej róży | 13 g   | Boil    | 10 min |

### Notes

- Ciemne słody wrzucić przy mash oucie  
*Oct 8, 2016, 1:12 AM*