

X-MAS 2.0

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **34**
- SRM **32.9**
- 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 **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **25.2 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Weyermann - Pale Ale Malt | 2.5 kg (39.7%) | 85 % | 7 |
| Grain | Strzegom Pale Ale | 1 kg (15.9%) | 79 % | 6 |
| Grain | Strzegom Pszeniczny | 1 kg (15.9%) | 81 % | 6 |
| Grain | Biscuit Malt | 0.3 kg (4.8%) | 79 % | 45 |
| Grain | Strzegom Czekoladowy ciemny | 0.5 kg (7.9%) | 68 % | 1200 |
| Grain | Weyermann - Carared | 1 kg (15.9%) | 75 % | 45 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------|--------|--------|------------|
| Boil | Endeavour | 20 g | 60 min | 7.5 % |
| Boil | HBC 472 | 15 g | 20 min | 9.3 % |
| Boil | Endeavour | 15 g | 20 min | 7.5 % |
| Aroma (end of boil) | HBC 472 | 15 g | 5 min | 9.3 % |
| Aroma (end of boil) | Endeavour | 15 g | 5 min | 7.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------|------|------|--------|------------|
| Safale BE-256 | Ale | Dry | 11.5 g | --- |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-----------------------|--------|---------|--------|
| Flavor | skórka pomarańczy | 50 g | Boil | 20 min |
| Flavor | zest z pomarańczy | 40 g | Boil | 20 min |
| Flavor | przyprawa do piernika | 40 g | Boil | 20 min |

| | | | | |
|--------|-------|------|------|--------|
| Flavor | kakao | 20 g | Boil | 20 min |
|--------|-------|------|------|--------|