

QUALITY TECHNOLOGIES PRIVATE LIMITED

TECHNICAL DATA SHEET: **YIELDEX 01**

PRODUCT DESCRIPTION

YIELDEX 01 are ready for use, highly exothermic cum insulating sleeves for use as riser linings for steel, iron and nonferrous casting applications. The sleeves are available in Open and Blind with “V” Notch as per sizes given in table. Special sizes can be made as per order. The formulations of sleeves have been designed to give most efficient performance, depending upon the sleeve size selected. Presently 3 types formulations are available for optimum performance in various sizes, as per details given below.

YIELDEX 01 A are Highly Exothermic cum Insulating Sleeves with a Modulus Extension Factor of 1.6min. Depending upon the nature of casting the apparent Modulus Extension Factor will also work out to 1.8. These sleeves are available upto 6” diameter.

YIELDEX 01 B are Mildly Exothermic cum Insulating Sleeves with a Modulus Extension Factor of 1.4min. These sleeves are available from 150mm diameter upto 300mm diameter in heights of 200mm.

YIELDIN 01 A are Fully Insulating Sleeves with a Modulus Extension Factor of 1.3min. These sleeves are available from 300mm diameter upwards in heights of 200mm.

Special formulation and sizes can also be manufactured as per customer requirements. The effective modulus and volumetric feeding efficiency for various sizes and formulations is given in the enclosed table.

HOW TO USE

YIELDEX 01 should be mounted on a suitable riser peg prior to moulding so to ensure the correct placement. Inner sleeve dimensions are given in the table to enable rise peg design. A metal pad of 10 to 15mm thick should be provided between the sleeves bottom and casting surface. However, sleeves with washburn cores can be directly placed on the casting surface but a hard rubber pad should be provided on the pattern to prevent breakage of the washburn core. When open sleeves are used riser metal may be poured upto its fill height. Recommended qty. of proprietary anti-piping compound must be added on the top of the riser to get best feeding efficiency from the sleeve riser.

INDICATIVE SPECIFICATIONS– YIELDEX 01

PRODUCT NAME	SPECIFIC GRAVITY	PERMEABILITY	BURNING TIME
YIELDEX 01 A	0.55 to 0.65	100 to 150	> 40mm/Min
YIELDEX 01 B	0.65 to 0.85	75 to 150	>15mm/Min
YIELDIN 01 A	0.95 to 1.10	50 to 150	Not Applicable

PACKING DETAILS

YIELDEX 01 sleeves are individually packed in polythene bags and supplied in Cardboard boxes. Quantities in each box varies according to the size.

QUALITY TECHNOLOGIES PRIVATE LIMITED

TECHNICAL SERVICES DIVISION QUALITY TECHNOLOGIES PRIVATE LIMITED

YIELDEX O1 (A)-Highly Exothermic and Insulating Sleeves MEF 1.6						Max feedable casting Volume					Test Cube size (steel) cm
H	Sleeve size (O) & (V)	Sleeve volume cm ³	Geometric Modulus cm	Effective Modulus cm	Max feedable casting modulus	cube type (1:1:2)	bar type (1:2:8)	semi plate (1:3:10)	plate type (1:10:10)	rangy type (1:15:30)	
3	1.0 x 3	37	0.58	0.92	0.77	123	134	175	263	409	3.85
3	1.5 x 3	83	0.83	1.33	1.11	276	301	395	592	921	5.56
3	2.0 x 3	147	1.07	1.71	1.43	491	536	702	1053	1638	7.14
4	2.0 x 4	197	1.11	1.78	1.48	655	715	936	1404	2183	7.41
3	2.5 x 3	230	1.29	2.07	1.72	768	837	1097	1645	2559	8.62
4	2.5 x 4	307	1.35	2.16	1.80	1023	1116	1462	2193	3411	9.01
4	3.0 x 4	442	1.58	2.53	2.11	1474	1608	2105	3158	4913	10.53
5	3.0 x 5	553	1.63	2.61	2.17	1842	2010	2632	3948	6141	10.87
6	3.0 x 6	663	1.67	2.67	2.22	2211	2412	3158	4737	7369	11.11
4	3.5 x 4	602	1.79	2.87	2.39	2006	2188	2866	4298	6686	11.97
5	3.5 x 5	752	1.86	2.98	2.48	2507	2735	3582	5373	8358	12.41
6	3.5 x 6	903	1.91	3.05	2.55	3009	3282	4298	6448	10030	12.73
4	4.0 x 4	786	2.00	3.20	2.67	2620	2858	3743	5614	8733	13.33
5	4.0 x 5	983	2.08	3.33	2.78	3275	3573	4679	7018	10917	13.89
6	4.0 x 6	1179	2.14	3.43	2.86	3930	4287	5614	8421	13100	14.29
6	4.5 x 6	1492	2.37	3.79	3.16	4974	5426	7106	10658	16580	15.79
6	5.0 x 6	1842	2.59	4.14	3.45	6141	6699	8772	13158	20469	17.24
6	6.0 x 6	2653	3.00	4.80	4.00	8843	9646	12632	18948	29475	20.00

Calculations made assuming bottom surface of sleeve riser to be non cooling and top surface of cube to be non cooling-i.e, junction is non cooling.

QUALITY TECHNOLOGIES PRIVATE LIMITED

YIELDEX O1 (B)-Mildly Exothermic and Insulating Sleeves MEF 1. 4						Max feedable casting Volume					Test Cube size (steel) cm
H	Sleeve size (O) & (V)	Sleeve volume cm ³	Geometric Modulus cm	Effective Modulus cm	Max feedable casting modulus	cube type (1:1:2)	bar type (1:2:8)	semi plate (1:3:10)	plate type (1:10:10)	rangy type (1:15:30)	
4	3.0 x 4	442	1.58	2.21	1.84						9.21
5	3.0 x 5	553	1.63	2.28	1.90						9.51
6	3.0 x 6	663	1.67	2.33	1.94						9.72
4	3.5 x 4	602	1.79	2.51	2.09						10.47
5	3.5 x 5	752	1.86	2.61	2.17						10.86
6	3.5 x 6	903	1.91	2.67	2.23						11.14
4	4.0 x 4	786	2.00	2.80	2.33						11.67
5	4.0 x 5	983	2.08	2.92	2.43						12.15
6	4.0 x 6	1179	2.14	3.00	2.50						12.50
6	4.5 x 6	1492	2.37	3.32	2.76						13.82
6	5.0 x 6	1842	2.59	3.62	3.02						15.09
6	6.0 x 6	2653	3.00	4.20	3.50						17.50
200	150 X 200	3537	3.16	4.42	3.68						18.42
200	175 X 200	4814	3.59	5.03	4.19						20.94
200	200 X 200	6288	4.00	5.60	4.67						23.33
200	250 x 200	9825	4.76	6.67	5.56						
200	275 X 200	11888	5.12	7.16	5.97						29.84
200	300 X 200	14148	5.45	7.64	6.36						31.82

TECHNICAL SERVICES DIVISION QUALITY TECHNOLOGIES PRIVATE LIMITED

YIELDIN O1 (A)- Insulating Sleeves MEF 1.3						Max feedable casting Volume					Test Cube size (steel) cm
	Sleeve size (O) & (V)	Sleeve volume cm ³	Geometric Modulus cm	Effective Modulus cm	Max feedable casting modulus	cube type (1:1:2)	bar type (1:2:8)	semi plate (1:3:10)	plate type (1:10:10)	rangy type (1:15:30)	
200	150 X 200	3537	3.16	4.11	3.42						17.11
200	175 X 200	4814	3.59	4.67	3.89						19.44
200	200 X 200	6288	4.00	5.20	4.33						21.67
200	250 x 200	9825	4.76	6.19	5.16						25.79
200	275 X 200	11888	5.12	6.65	5.54						
200	300 X 200	14148	5.45	7.09	5.91						29.55
200	325 X 200	16604	14.44	18.06	15.05						

QUALITY TECHNOLOGIES PRIVATE LIMITED

MATERIAL SAFETY DATA SHEET: **YIELDEX 01**

1. PRODUCT IDENTIFICATION	
Trade Name & Use	: YIELDEX 01
Manufacturer / Supplier	: QUALITY TECHNOLOGIES PVT. LTD. No.34, Road No.1, IDA Mallapur, Nacharam P.O., Hyderabad – 500076. PH:040-271 53888, 271 55828 Fax: 040-27152567, email : info@qtecindia.com Website:www.qtecindia.com
2. INFORMATION ON COMPOSITION	: Refractory & Insulating fillers and Exothermic Mixture
3. HAZARDS IDENTIFICATION	
Flammability	: Yes
Auto Ignition Temperature	: 150°C
Corrosive Material	: No
Explosive Material	: Yes
4. FIRST AID :-	
At inhalation, ingestion and contact with skin	: Rinse with plenty of soap and water and if suspect symptoms persist
Eye Contact	seek Medical advice.
5. FIRE FIGHTING MEASURES	
Fire	: Flammable.
6. ACCIDENTAL RELEASE MEASURES	: Breakages should be swept away and burnt under supervision.
7. HANDLING & STORAGE	
Handling & Storage precautions	: Keep in a cool and dry place.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION	
Route of Entry	: Skin
Effects of Exposure	: Constant exposure and inhalation may cause mild irritation to the nose, eye and skin. Wash the affected area with lot of water and consult a doctor.
Personal protective equipment	: Avoid direct contact with hands, use gloves wherever possible.
9. PHYSICAL AND CHEMICAL PROPERTIES	
Appearance	: Vacuum formed cylindrical shapes
Physical state	: Solid
Odor	: Resinous odour
10. STABILITY AND REACTIVITY	
Chemical Stability	: Stable
Incompatibility with	: Prone to moisture pick up
Other materials	
11. TOXICOLOGICAL INFORMATION	
On product	: No data available
On Ingredients	: No data available.
12. ECOLOGICAL INFORMATION	
On product	: No data available
On Ingredients	: No data available
13. DISPOSAL CONSIDERATIONS	
Empty Buckets	: Never use empty C.B.Boxes for storing food stuffs or other materials meant for human and animal consumption. Empty C.B.Boxes may be sold as scrap or to HDPE recyclers approved by the State Pollution Control Boards.
14. TRANSPORT INFORMATION	: Non-dangerous product for transportation by road, sea, air.
15. REGULATORY INFORMATION	: No data available
16. OTHER INFORMATION	: No data available

DISCLAIMER: This information is furnished without warranty of any kind. It is based on our knowledge and is believed to be reliable. This information does not contain any assurance of technical properties or suitability for a specific application or results. We reserve the right to change specs. without prior notice as a natural consequence of our continuous efforts in product development and improvement.