

Two market studies by Plastic Consult and Assocomplast

LAST YEAR IN ITALY

RAW MATERIALS

Some meaningful figures from a multi-customer market research, published by Plastic Consult, the sole Italian consultants specialized in the plastics field, testify the healthy situation of this sector in Italy. The Italian economy appeared in good health (GNP + 3.9%, industrial production + 4.8%, consumer expenditure + 4.0%), during 1988, though some factors are still out of government's control (inflation rate and an ever increasing public debt). Polymer demand recorded a buoyant + 9.7% over 1987, that is a double rate with respect to industrial production. Low 1986 polymer prices plus resumed cash availability had persuaded many consuming industries to invest in the suitable equipment to replace traditional materials with plastics. This massive investment process, started by late 1986 - early 1987, is now showing results. Substitution continues at accelerated rates, though most of the growth sprouts from well known applications and little from major innovation.

This trend has strengthened during 1988 despite increased polymer prices. The expansion has been in fact limited more by the short supply situation aroused during the year than by higher prices. 1988 worldwide strong demand took by surprise most plastic producers and capacity expansions came too late to cope with requirements. Shortages developed and prices moved accordingly. The Italian plastics production increased by about + 8.6% during 1988, definitely less than demand, causing a + 5.0% in imports (which now cover over 45% of total consumption). Exports decreased by about - 2.2%, following producers efforts to satisfy domestic demand. Exports represent about one third of total production and the balance worsened during 1988

(-800,000 tons against -700,000 in 1987).

Commodity plastics

The five major polymers, namely low and high density polyethylene, polypropylene, PVC and polystyrene, account for 80% of consumption. Their 1988 trend is shortly described in the following paragraphs. LDPE/LLDPE showed in 1988 a significant growth, achieving a + 5.7% over 1987. 50% of the demand is covered by imported products. This has created considerable supply problems during the year. Despite major environmental issues, demand for film continued to increase (+ 5.3%). Film applications represent close to 80% of total demand for LDPE/LLDPE. HDPE performance has been even better with a + 12% over 1987. Though all applications did well, blow moulding outlets growth (detergent bottles, fuel tanks) was particularly impres-

sive (+ 16.7%).

The polypropylene demand raised at a + 17% rate, the highest recorded among commodity plastics in 1988. Growth was fuelled by new film capacity, though most other outlets did well. There were no supply limitations in 1988, especially for injection moulding grades. The PVC trend continued to give pleasant surprises during 1988, despite the maturity stage reached by most of its outlets, environmentalists attacks and price increases recorded over the year.

All major outlets (pipes, profiles, cable coating, packaging) developed at satisfactory rates, probably because no supply limitations were recorded for most of the year.

General purpose and high impact polystyrene consumption also recorded a sustained growth (+ 9.6%) during 1988. Extrusion applications did better than injection moulding ones, especially for packaging. The limited penetration achie-

ved by expanded polystyrene board on the insulation market explains the moderate consumption level still recorded in Italy for EPS. Demand however showed a + 6.5%, following market development for packaging and high quality insulation board.

Major outlets

Packaging applications are by far the major consuming sector for plastic materials, representing about 40% of total demand. Growth rate was about + 11% during 1988, almost equally split between flexible and rigid packaging, though downgaging taking place in film and outstanding PET bottle performance (+ 31%) resulted in a more marked development of rigid outlets.

There are some threats to future development. The most immediate is the new legislation imposing a 100 lire/unit tax on shopping bags. Longer term other fields, currently under environmentalists scrutiny, might be affected (i.e. food and non food bottles, PVC based disposable packaging). Vast recovery and recycling programs are however under study and these should at least partially preempt banning legislation.

Another area where plastics continue to collect successful achievements is automobile. The Italian automotive industry has been breaking record after record over the last few years, including highest ever production level, reached during 1988. Plastics penetration made further inroads, reaching 97 kgs for vehicle and 12% of total weight in 1988.

Every year a few more kgs per car are added (fuel tanks, under-the-bonnet parts, body components) though body panels are yet to come except than for sport cars (i.e. Ferrari). Proportion of larger models (especially Alfa 164 and 75) is expected to increase, giving a



good growth for plastics in the near future.

Building activity remains depressed in Italy and the small recovery experienced over 1988 went unperceived.

Plastics building and construction applications have reached in Italy a lower penetration than in other European countries. It is however hoped that the new single EEC market will have a favourable impact, with a more strict control on finished building standards and building components.

Producers of plastic goods for building have started to associate voluntarily to promote quality in building materials, thus preceding the 1992 event. Even if quantities were not moved up considerably yet, product value has. This contributes to increase the average size of plastics processors in this sector, which until now has been rather small.

THE PLASTICS PROCESSING INDUSTRY

The total number of processing companies remained practically unaltered during 1988 (5,000). Factories, on the contrary, grew by about a hundred units. The largest share of the activity is located in the Northern part of the country (72.5%).

Most results have been positive during 1988: employment (+4,000 units), total sales (+27%) and sales per employee (+22%). Added value, despite raw material price increases, grew by about 18%, setting at about 47% of the sales value.

Sales price per kg of plastic manufactured goods increased in 1988 by over 12%, well above the inflation rate but well below average raw material price growth (+22-23%).

A production breakdown by manufacturing technology is given in the relevant table, expressed as percentage of fabricated parts weight. As it can be seen, extruded articles represent almost one half of the total and injection moulded ones another quarter. These two technologies are by far the most widespread and well known by the industry in Italy.

Among the other most significant outlets, the totally unexpected explosive growth of the demand for PVC thermoformed sheets is giving new impulse to calendaring, a technology already in an advanced maturity stage.

PROCESSING MACHINERY

The plastics and rubber machinery import-export trend during 1988 - which is summarized in the table reporting the official figures released by ASSOCOMAPLAST - points out the growing internationalization of the Italian market developing its attitude in the acquisition of non-national technologies in this sector as well.

Considering a commercial balance which is definitely in favour of the Italian production, we may notice how the 20.6% increase in machinery export value has been counterbalanced, during last year, by a raise of imports of about 46% - still considering the value.

Such an increase of imports by Italian processors is due, from a certain point of view, to the excellent trend of the demand which could not be effectively faced by the Italian manufacturers but, on the other side we have to assume also the inability of Italian manufacturers to conform to the requests of either new technologies or machinery of higher capacities which seem to characterize the developing trend of the market, especially in the extrusion field. It is also convenient to examine the origin of machinery imports in Italy and the destination of exports, in order to verify which are the major commercial partners of Italian companies. As far as foreign machinery introduction in Italy is concerned, the prevalence of German suppliers is once more confirmed by the different statistical figures of our sector: German machinery ranks first in any case. The German share of import varies from 34.99% for extruders, up to 92.7% in the case of calenders.

We think it is more interesting, however, to devote a major attention in the examination of Italian exports, considering the different statistical figures.

For "made in Italy" calenders the first country of destination is West Germany, which absorbed 56.5% of the export in 1988; at the second place is France, with 26.1%. The USA are at the first place (16.5% of total export) for the flexoprinting machines, followed by France (10.7%) and by USSR (9.3%).

Considering the statistics relative to plants for mono and multifilaments and fibres we can notice a certain balance: Benelux (11.7%) ranks first, followed

PLASTICS MARKETS IN ITALY (000 TONS)	1985	1986	1987	1988 (ESTIMATE)
PRODUCTION	2,420	2,520	2,690	2,920
IMPORT	1,345	1,505	1,610	1,690
EXPORT	885	950	910	890
CONSUMPTION	2,880	3,075	3,390	3,720
YEARLY GROWTH RATE (%)	+ 8.0	+ 6.8	+ 10.2	+ 9.7

ALL THERMOPLASTICS INCLUDED WITH THE EXCLUSION OF RECYCLED MATERIALS AND THE ADDITION OF A SELECTED GROUP OF THERMOSETS DESTINED TO PLASTICS PROCESSING

THERMOPLASTICS IN ITALY (000 TONS)	1985	1986	1987	1988 (ESTIMATE)
PRODUCTION	2,120	2,200	2,350	2,650
IMPORT	1,220	1,370	1,470	1,550
EXPORT	750	800	750	720
CONSUMPTION	2,600	2,770	3,070	3,390
YEARLY GROWTH RATE (%)	+ 7.7	+ 6.9	+ 9.4	+ 10.4

CONSUMPTION OF MAIN THERMOPLASTICS IN ITALY (000 TONS)	1985	1986	1987	1988 (ESTIMATE)
POLYETHYLENE	965	1,005	1,125	1,210
POLYPROPYLENE	410	440	475	555
PVC	675	710	785	870
POLYSTYRENE	275	300	320	350
ENGINEERING POLYMERS	120	150	185	215
OTHER PLASTICS (INCLUDING STYRENE COPOLYMERS, CELLULOSES, ACRYLICS, SPECIALTY POLYETHYLENES)	155	165	180	190
TOTAL	2,600	2,770	3,070	3,390

THERMOSETS MARKET IN ITALY (000 TONS)	1985	1986	1987	1988 (ESTIMATE)
PRODUCTION	300	320	340	362
IMPORT	125	134	140	143
EXPORT	135	148	159	172
CONSUMPTION	290	306	321	333
YEARLY GROWTH RATE (%)	+ 2.3	+ 5.5	+ 4.4	+ 3.7

THERMOSET MOULDING POWDERS, UNSATURATED POLYESTERS AND EPOXIES FOR PLASTIC USES ONLY, POLYURETHANES

THE ITALIAN PLASTICS PROCESSING INDUSTRY				
STRUCTURES AND FIGURES	1985	1986	1987	1988
COMPANIES (NUMBER)	4,900	5,000	5,000	5,000
FACTORIES (NUMBER)	5,300	5,400	5,500	5,600
EMPLOYEES (NUMBER)	96,000	96,500	100,000	104,000
SALES (BILLION LIRE)	10,000	10,300	12,000	15,200
ADDED VALUE (BILLION LIRE)	4,700	5,300	6,000	7,100
PRODUCTION BY TECHNOLOGY (%)				
EXTRUDED				
- FILM	27	26	25	25
- SHEET	5	5	5	5
- PIPE	10	10	10	10
- PROFILE	5	5	5	5
- OTHER	2	2	2	2
SUBTOTAL EXTRUSION	49	48	47	47
INJECTION MOULDED PARTS	25	26	26	26
BLOW MOULDED PRODUCTS	6	6	7	7
CALENDERED FILM & SHEET AND COATED FABRICS	7	8	8	8
OTHERS	13	12	12	12
TOTAL PLASTICS ITEMS	100.0	100.0	100.0	100.0